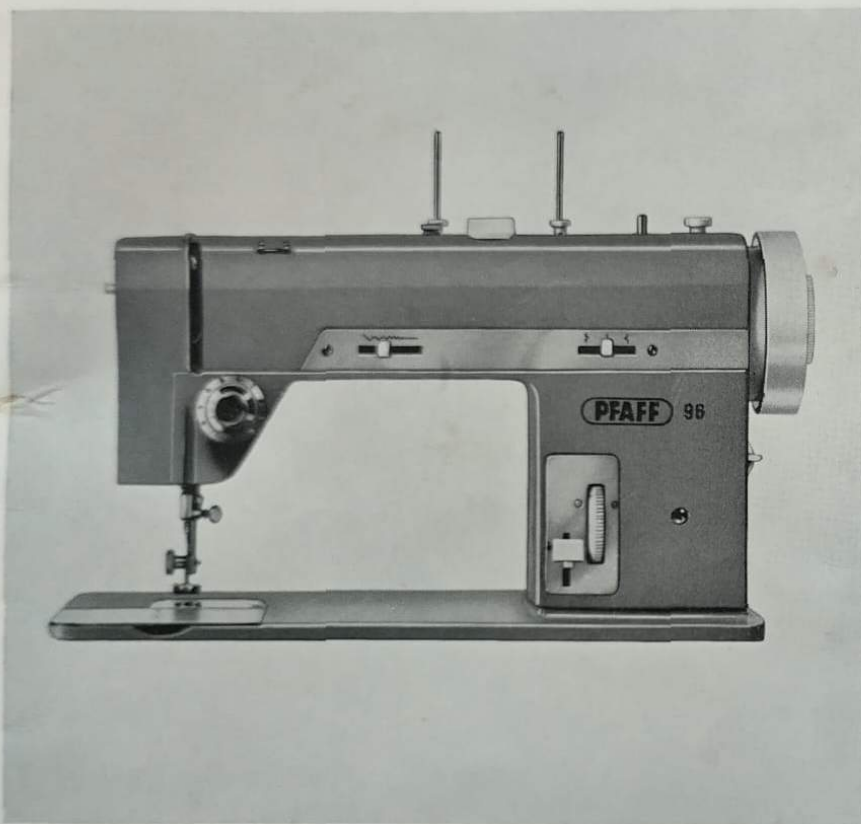
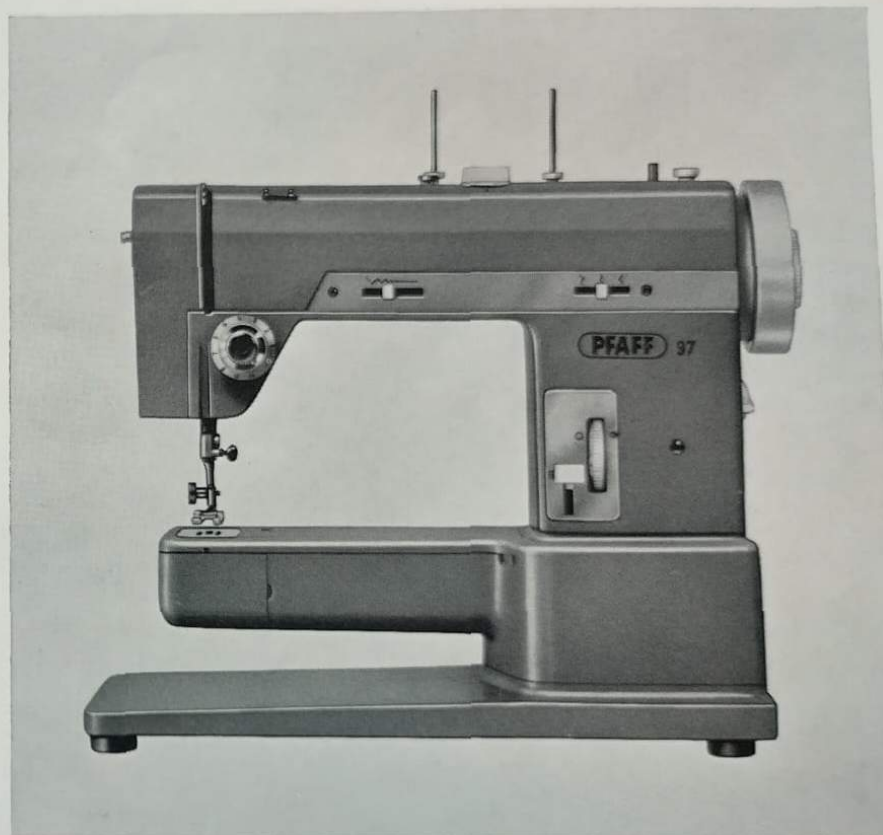


Instruction Book



PFAFF® 96



PFAFF® 97

Needle and Thread Chart

Type of Fabric	Thread		Needle		
	Type	Size	Size	Point Style	
Bed linen Fine linen Muslin	Cotton	40	80 70 – 80 70 – 80	130 R	
Dress fabrics, such as brocade, satin ottoman, taffeta, georgette, crêpe, chiffon, batiste, blouse fabrics and poplin shirting	Silk	50	70 – 80		
	Cotton or mercerized cotton	50			
Suitings and mantlings	Silk	40	80 – 90		
Twill, denim	Cotton	40	90 – 100		
Heavy linen	Cotton	40	90 – 100		
Burlap	Cotton or linen	40	90 – 100		
	Linen	40	110		
Terry cloth, chenille goods, knitted pile fabric for bathrobes, corduroy	Cotton	40	80 – 90		
	Silk	50			
Cotton, rayon staple fabrics	Cotton	50	70 – 80		
Jersey fabrics (synthetic)	Synthetic	50	70 – 80	130 ses	
	Cotton	50		130 ses	
Lastex, Helanca fabrics	Synthetic	50	70 – 90	130 ses	
	Silk	50		130 ses	
Foambacks	Synthetic	40	70 – 80	130 R	
	Silk	40	90		
Jersey fabrics (wool) Woolens	Silk	50	80	130 ses	
	Mercerized cotton	50	70 – 80	130 R	
Cotton curtains Synthetic curtains	Mercerized cotton	40	70 – 80	130 sük	
	Synthetic thread	40	70 – 80		
Acella, leatherette, oilcloth	Cotton	40	80	PCr	
Elastic corsetry fabrics, Firm corsetry fabrics, corset satin	Synthetic thread	40	70 – 90	130 ses	
	Cotton	40	90		
Leather	Cotton	40	110	130 Lr	
	Linen	40			
Decorative stitching	Embroidery thread	30 – 50	70	130 R	
	Heavy embroidery thread		90 – 100		
	Buttonhole silk		90 – 100		
	Embroidery and darning thread	30	80		
		50	70 – 80		
	Silver-gold thread Silver thread	70	80 – 100		

Needle Point Styles



Ordinary cloth
point = 130 R



Fine ball point for
nylon, silk, etc. =
130 ses



Medium ball point
for medium-heavy
elastic materials =
130 suk

PCr = Wedge point with right-twist
groove

Lr = Reverse twist point

Instructions

PFAFF[®] 96 and 97

Utility-Stitch Zigzag
Sewing Machine

Foreword

Your new Pfaff sewing machine will enable you to master a large variety of sewing, embroidering and darning jobs easily and quickly

With the built-in utility-stitch mechanism you can sew various functional seams as are used on non-elastic as well as "stretch" fabrics, such as tricot, jersey and Helanca.

This instruction book has been compiled in order to familiarize you thoroughly with all the sewing jobs coming up in a home.

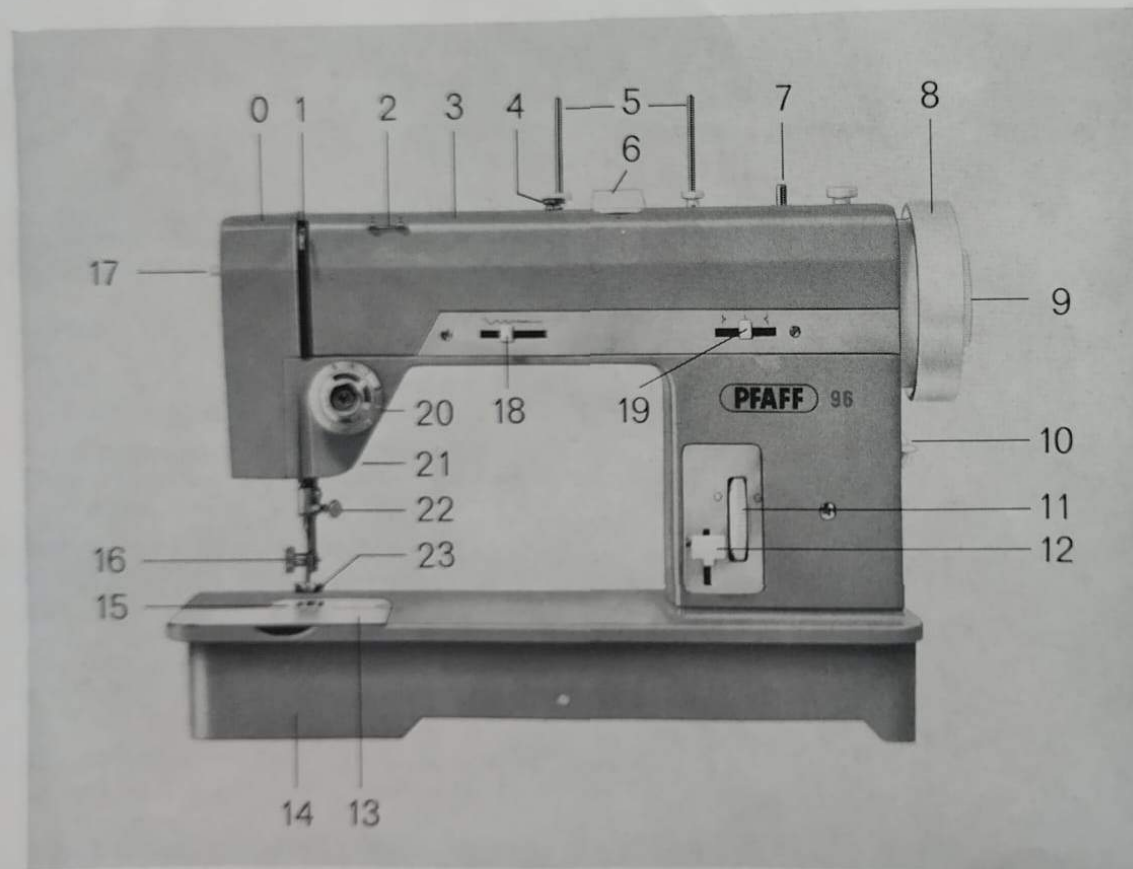
We suggest that you try out the various sewing techniques discussed in this book so that you will become well acquainted with your machine.

If you have any sewing problems, please do not hesitate to contact your Pfaff dealer who will be glad to help you at any time.

We hope you will always enjoys sewing with your Pfaff.

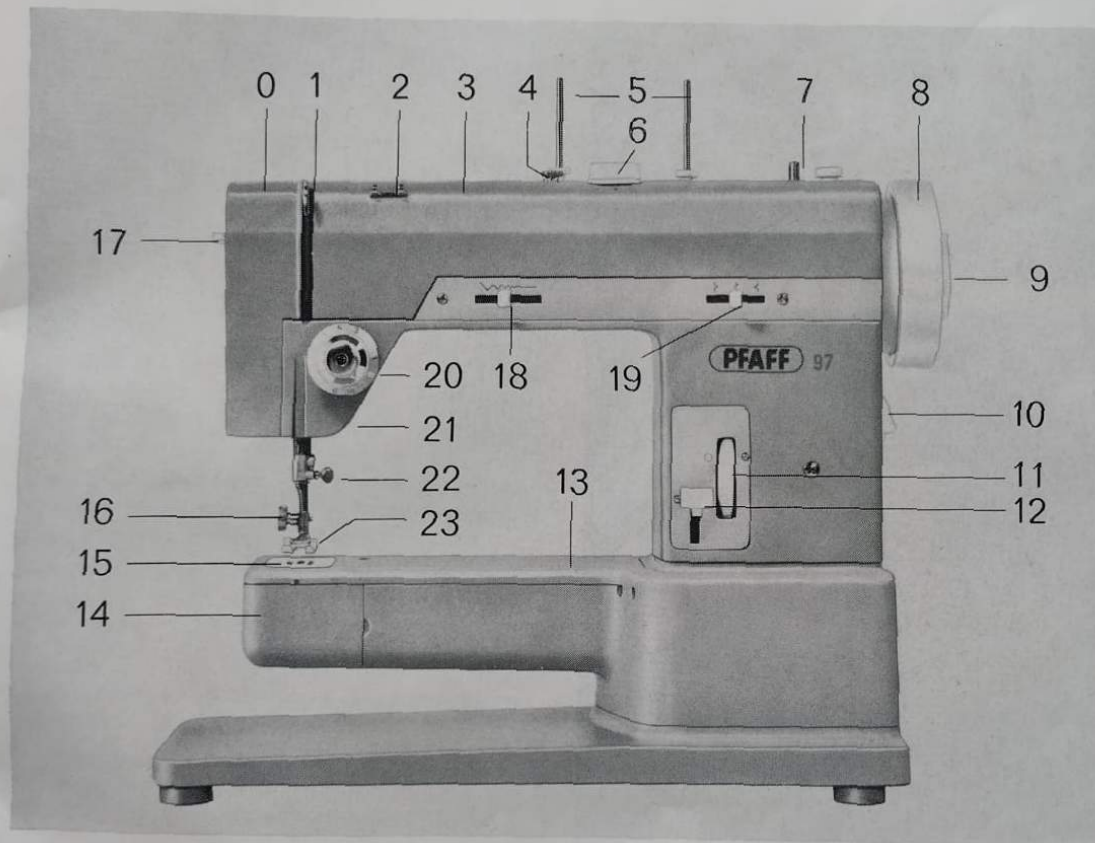
G. M. PFAFF AG · Karlsruhe-Durlach Branch

Essential Parts of Your Pfaff 96



- 0 Face cover
- 1 Take-up lever
- 2 Thread guide
- 3 Top cover
- 4 Thread retainer stud
- 5 Spool pins
- 6 Utility-stitch control
- 7 Bobbin winder
- 8 Balance wheel
- 9 Stop motion knob
- 10 Motor disengaging mechanism
- 11 Stitch length control
- 12 Reverse feed control
- 13 Bed cover
- 14 Transverse rotary hook (below bedplate)
- 15 Needle plate
- 16 Sewing foot thumb screw
- 17 Light switch
- 18 Stitch width control
- 19 Needle position lever
- 20 Needle thread tension
- 21 Presser bar lifter (on back of machine arm)
- 22 Needle set screw
- 23 Sewing foot

Essential Parts of Your Pfaff 97

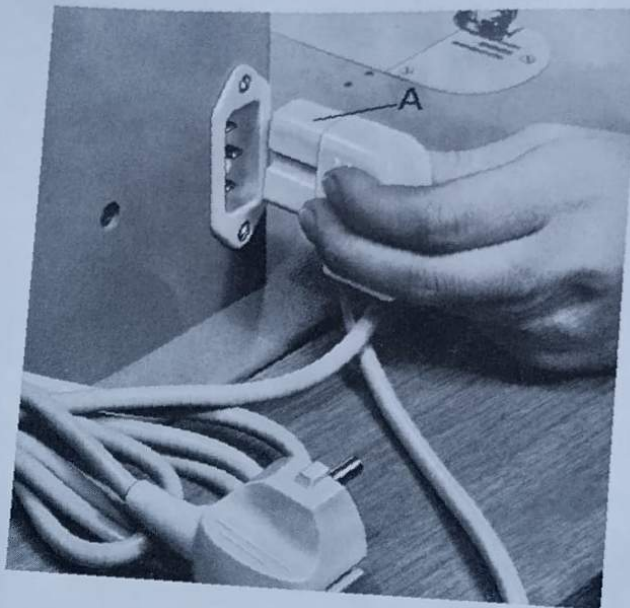


- 0 Face cover
- 1 Take-up lever
- 2 Thread guide
- 3 Top cover
- 4 Thread retainer stud
- 5 Spool pins
- 6 Utility-stitch control
- 7 Bobbin winder
- 8 Balance wheel
- 9 Stop motion knob
- 10 Motor disengaging mechanism
- 11 Stitch length control
- 12 Reverse feed control
- 13 Free arm
- 14 Free arm cover (enclosing transverse rotary hook)
- 15 Needle plate
- 16 Sewing foot thumb screw
- 17 Light switch
- 18 Stitch width control
- 19 Needle position lever
- 20 Needle thread tension
- 21 Presser bar lifter (on back of machine arm)
- 22 Needle set screw
- 23 Sewing foot

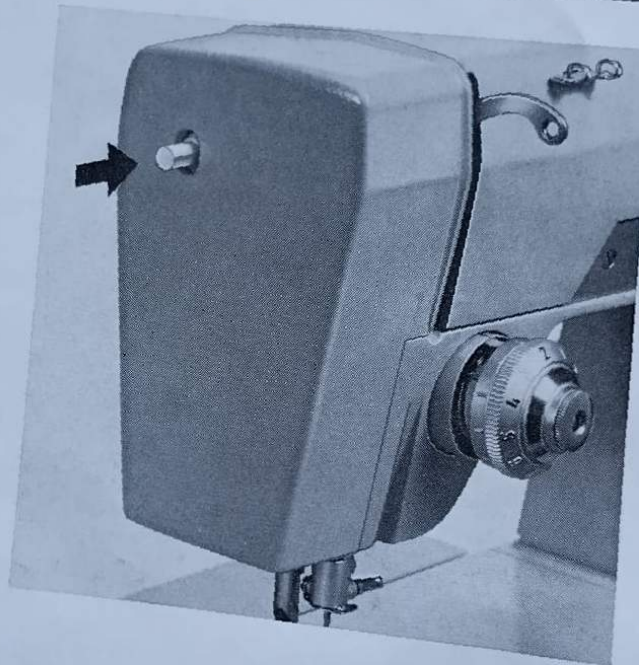
Preparing Your Machine for Sewing

Push plug **A** into the receptacle on the back of the machine and the plug at the other end of the cord into wall outlet.

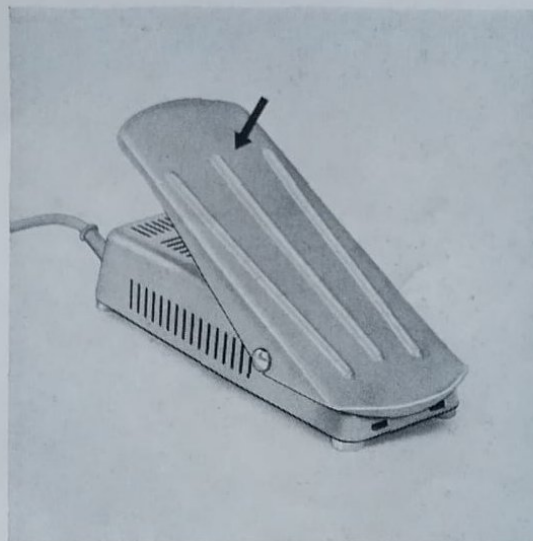
If your machine is foot-operated, push the plug of the sewlight cord into the wall outlet.



To **switch on the sewlight**, push the button on the face cover (see ill.).

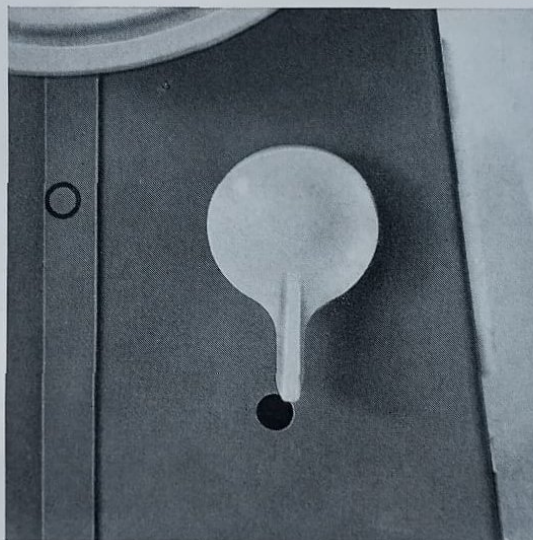


Place the **foot control** within easy reach of your foot and press down the pedal. The harder you press, the faster the machine will run.



Power-driven machines feature a lever (10) underneath the balance wheel which serves to **swing the motor to its operative position**. To engage the motor, flick this lever down. After you have completed sewing, flick this lever to its top position.

With the motor swung out of engagement, all machines fitted with a treadle mechanism can be driven by foot power.

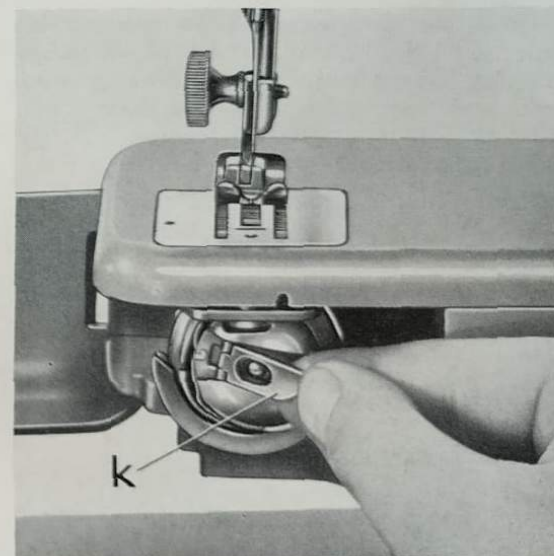
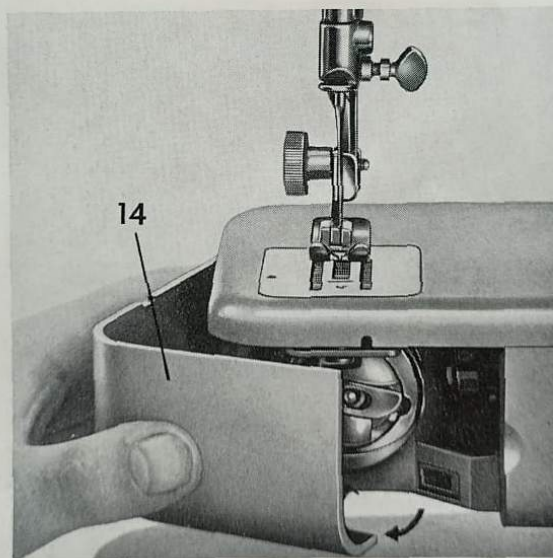
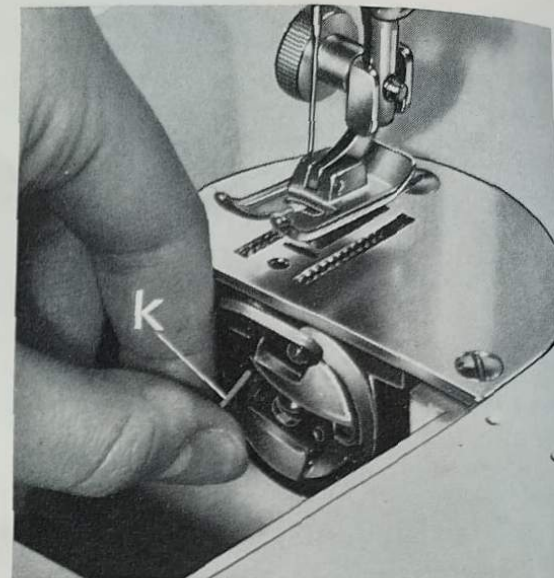
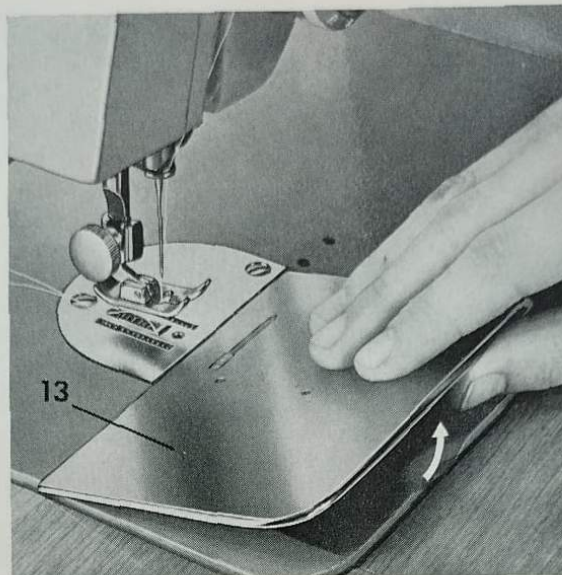


To remove the bobbin case, rotate the balance wheel until the needle is at the top of its stroke.

On the Cl. 96, remove bed cover (13), as illustrated. Lift latch **k** on the bobbin case and pull out the bobbin case with the bobbin.

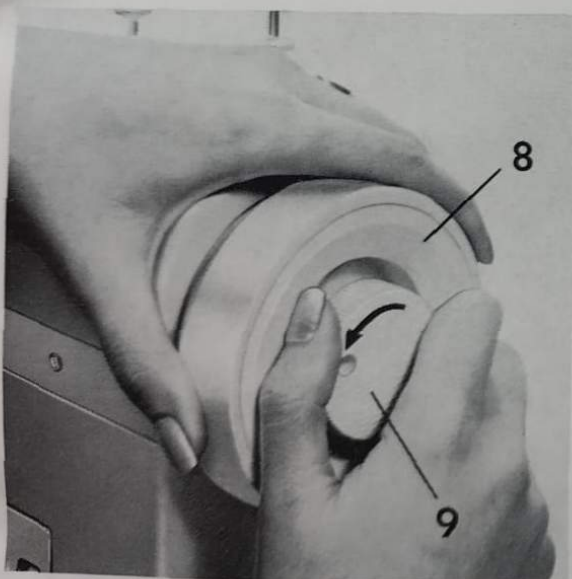
The bobbin cannot fall out as long as you hold the case by its open latch. When you release the latch, the empty bobbin drops out.

On the Cl. 97, the bobbin case is removed just like on the Cl. 96. To get at the bobbin case, however, you must first open free arm cover (14) swinging it toward the left.



For **bobbin winding**, disengage the sewing mechanism. Hold balance wheel (8) while turning stop motion knob (9) toward you (see ill.).

To engage the sewing mechanism after the bobbin has been wound, turn the stop motion knob away from you (as indicated by an arrow in the ill.).

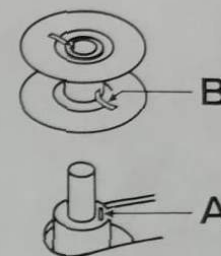
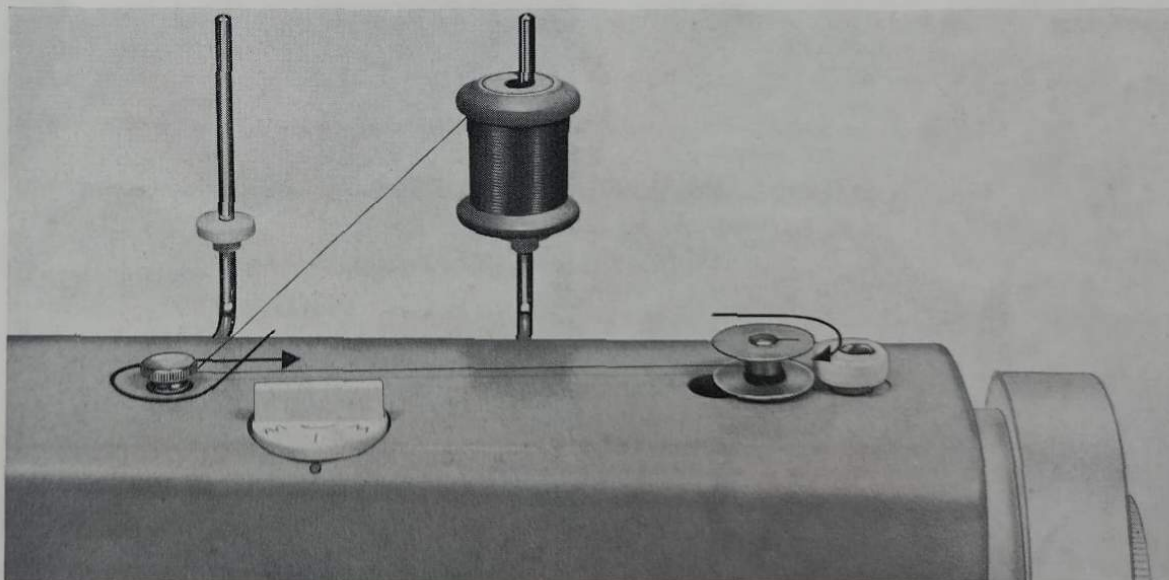


Pass the thread around thread retainer stud (2) in the direction indicated by an arrow. Place a bobbin on the bobbin winder spindle, making sure that key **A** at its base enters slot **B** in the bobbin (see ill.).

Wind a few turns of thread on the bobbin and push the bobbin toward the right.

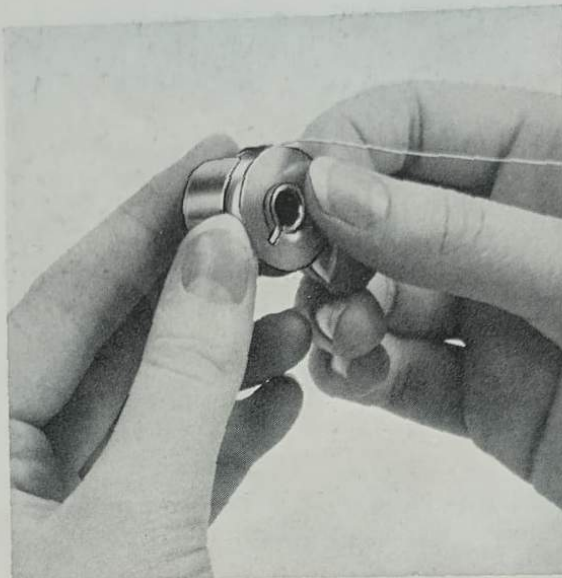
Start the machine.

When the bobbin is full, it is pushed toward the left and can be removed from the spindle.

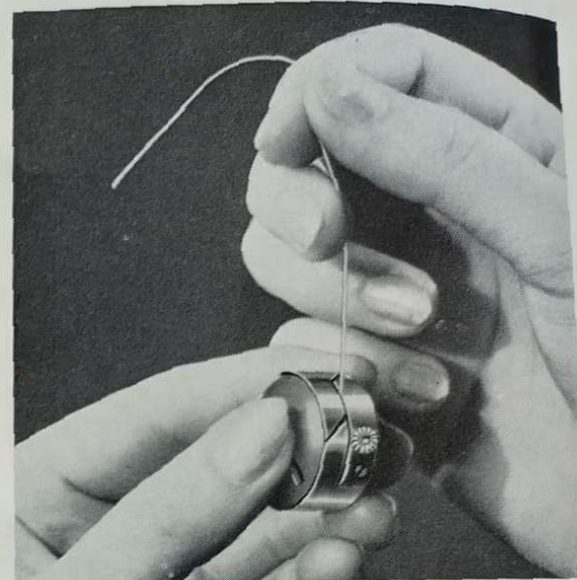


Hold the **full bobbin** so that the thread draws toward the right (1) and place it in the **bobbin case**.

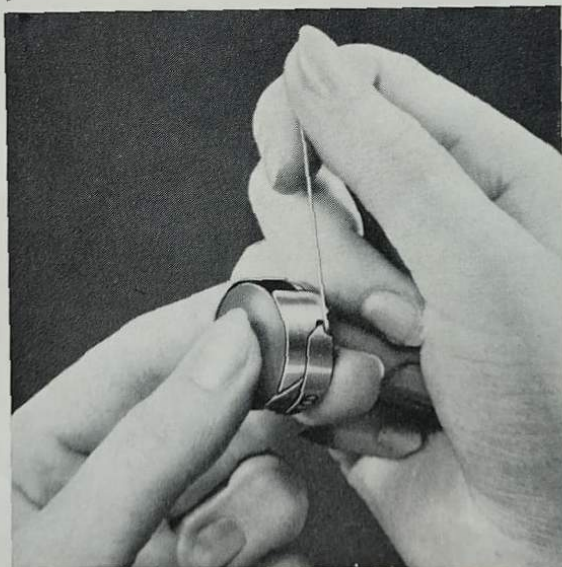
Pull the thread into slot (2) and under spring (3). As you pull the thread, the bobbin should rotate clockwise (4). Leave about three inches of thread hanging from the bobbin case.



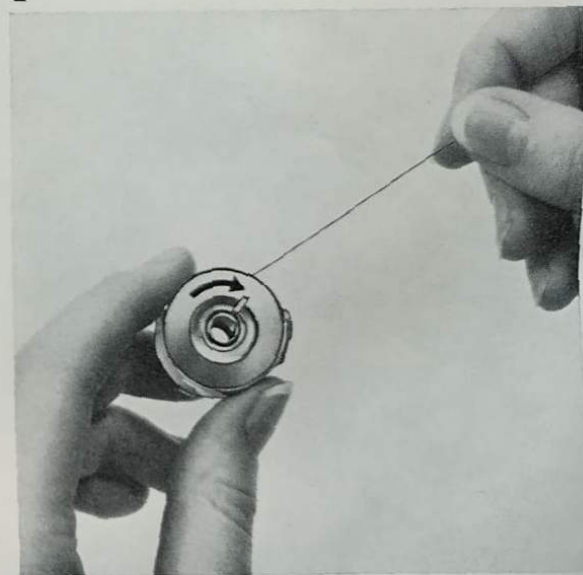
1



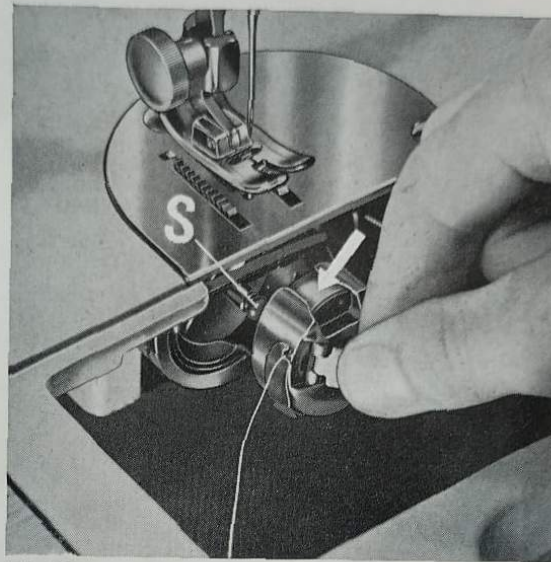
2



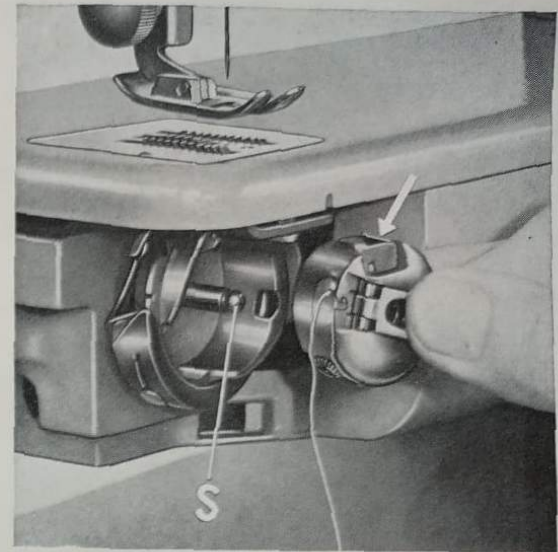
3



4

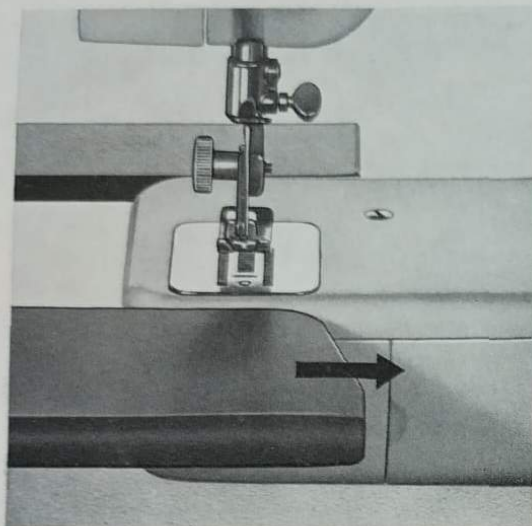


CI. 96



CI. 97

To **insert the bobbin case** into the machine, rotate the balance wheel until the needle, is at its highest point. Lift the latch and place the bobbin case on center stud **s** (see ill.), making sure its slot (white arrow) points up. Release the latch and press against the bobbin case until you hear it snap into place.



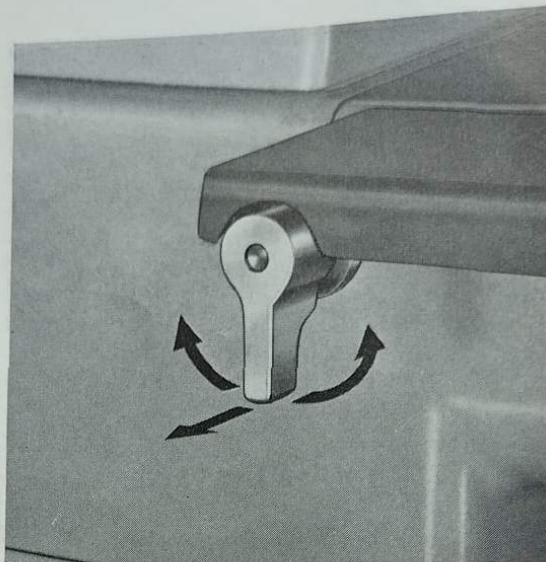
1

To enlarge the sewing area of the Cl. 97 for ordinary sewing operations, push the **workplate** onto the free arm as far as it will go (1). Then lock it in place by turning down the lever on the back of the machine (2) until the locking stud snaps into the hole in the free arm. Press the workplate support against the machine base until it snaps into place (3).

To remove the workplate, swing up its support and unlock it by pulling out and swinging up the lever on the back of the machine (see arrow in Fig. 2).

On machines having no carrying case base, the workplate support is pressed against the baseplate of the machine.

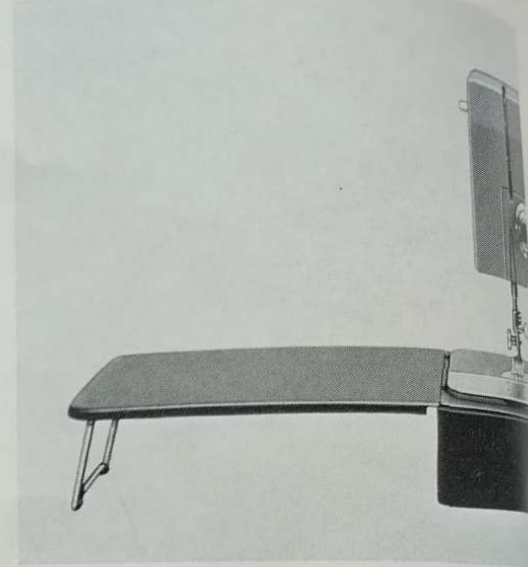
10



2

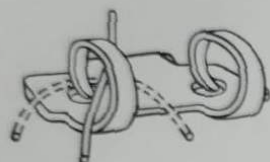


3

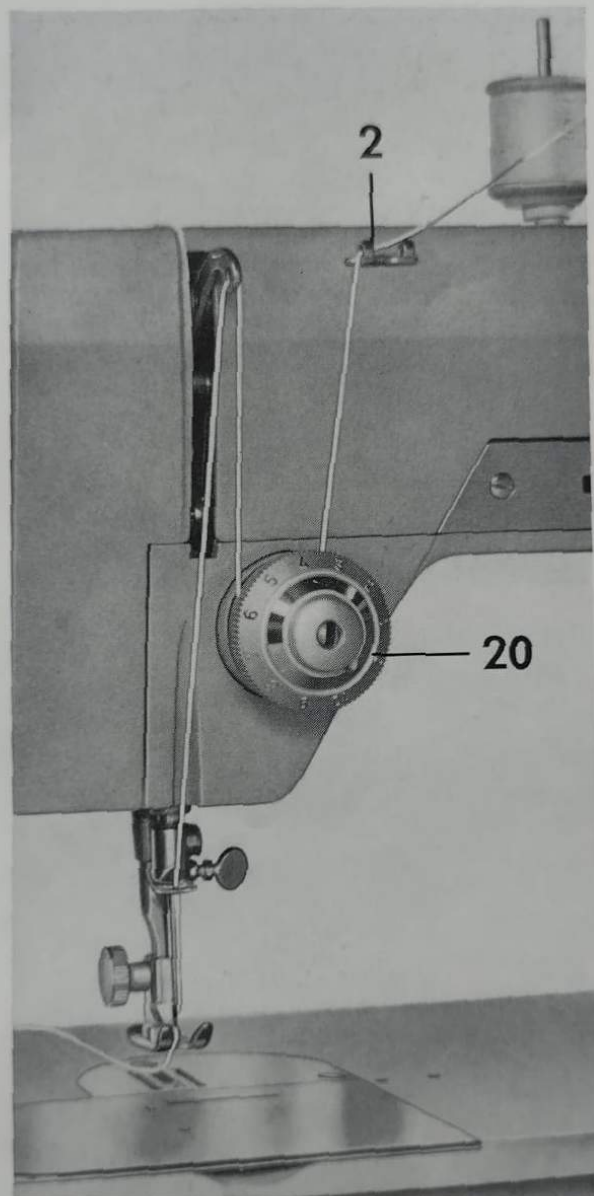


4

The sewing area of the Cl. 96 Portable is enlarged with the aid of an **extension** (4).



2



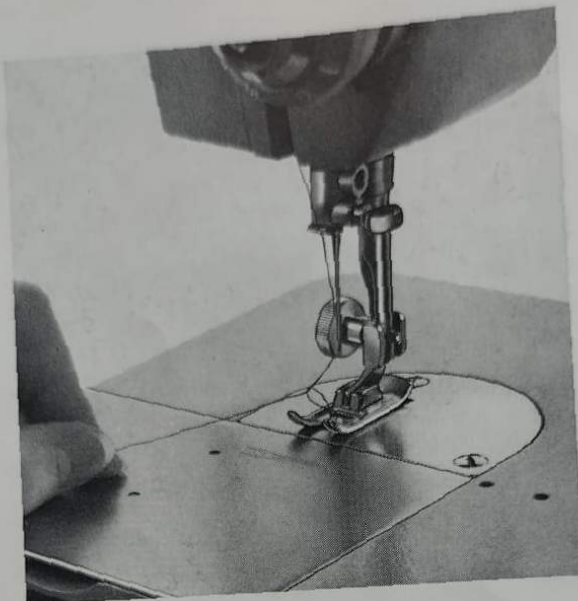
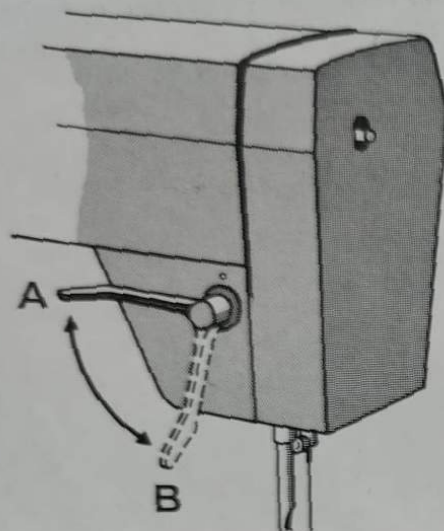
Upper threading is illustrated opposite.

Please note that the thread is placed between any two of the discs of tension (20), pulled clockwise around the tension stud and drawn toward the right with a jerk (see ill.). As you do this, hold the thread steady somewhere between the spool and the tension.

Thread the needle from front to back.



20



The **sewing foot is raised and lowered** by operating the presser bar lifter (21) on the back of the machine (see ill.).

A = Presser bar lifter up

B = Presser bar lifter down

To **draw up the bobbin thread**, hold the needle thread and lower the sewing foot.

Turn the balance wheel toward you a full turn. Pull the needle thread to draw up the bobbin thread.

Place both threads back under the sewing foot after it has been raised again.

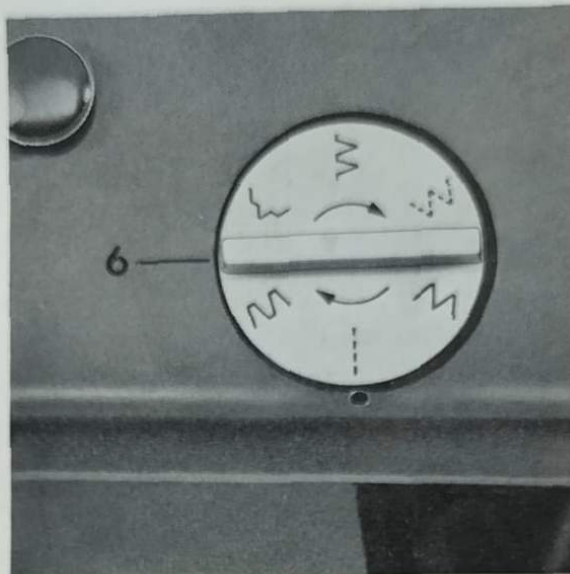
Fundamentals of Machine Operation

Turn **utility-stitch control** (6) clockwise (as indicated by arrows in Fig. 1) until the symbol of the desired seam is at the bottom.

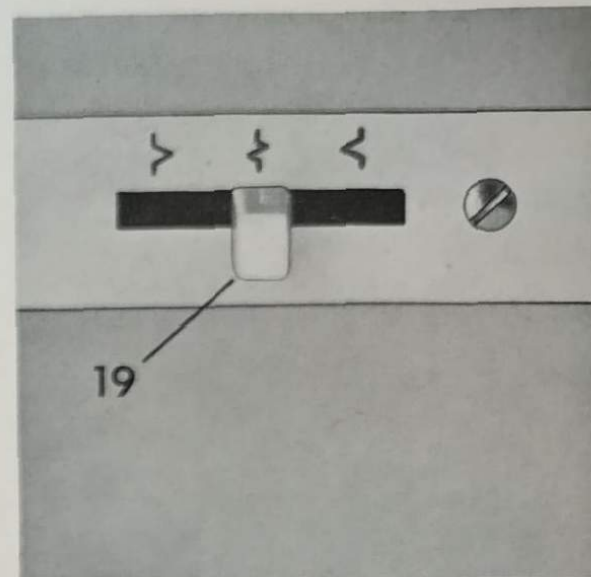
For ordinary sewing, **needle position lever** (19) should be in its center position (Fig. 2).

Make sure **take-up lever** (1) is at its highest point before you begin and after you have completed a seam (Fig. 3).

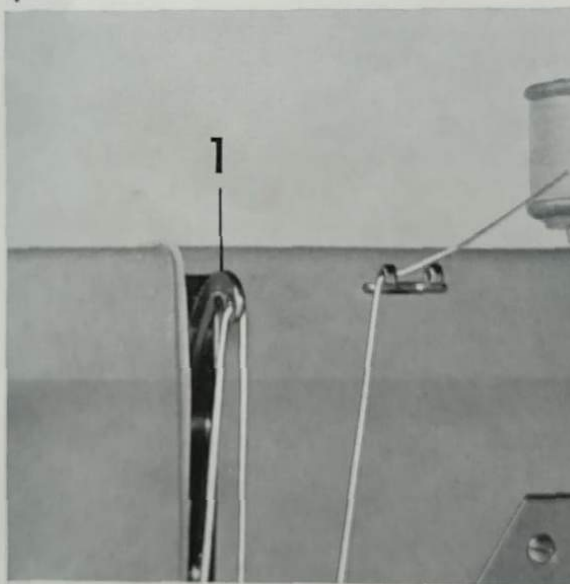
Always rotate **balance wheel** (8) toward you (see arrow). As you do this, check to make sure stop motion knob (9) is tightened firmly (Fig. 4).



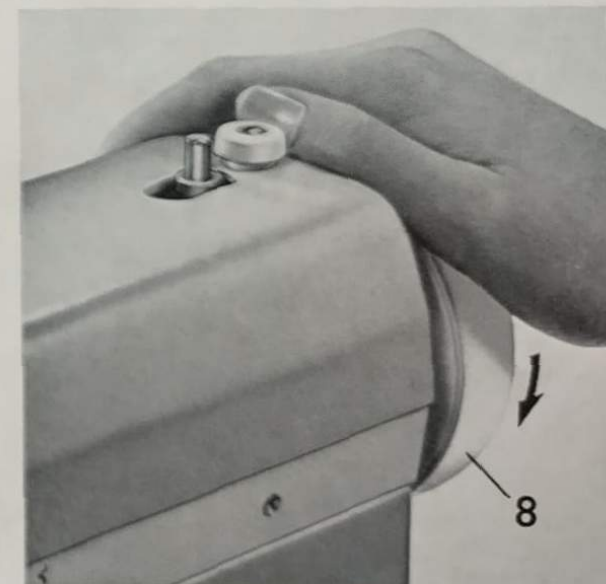
1



2

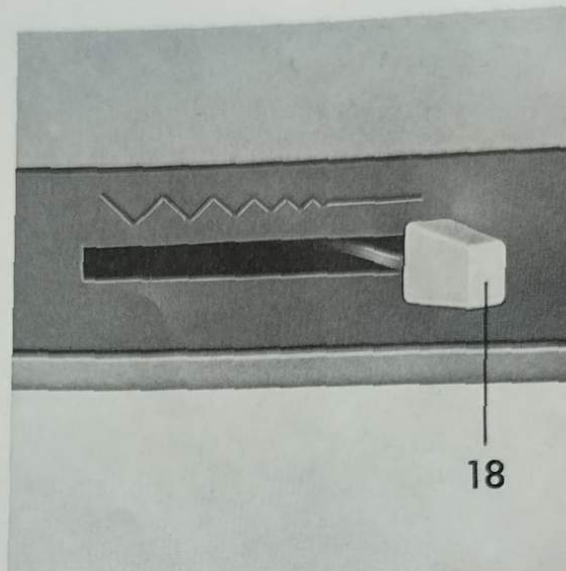


3

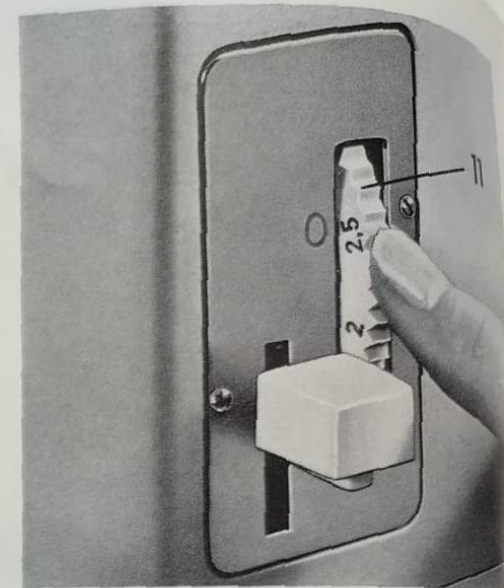
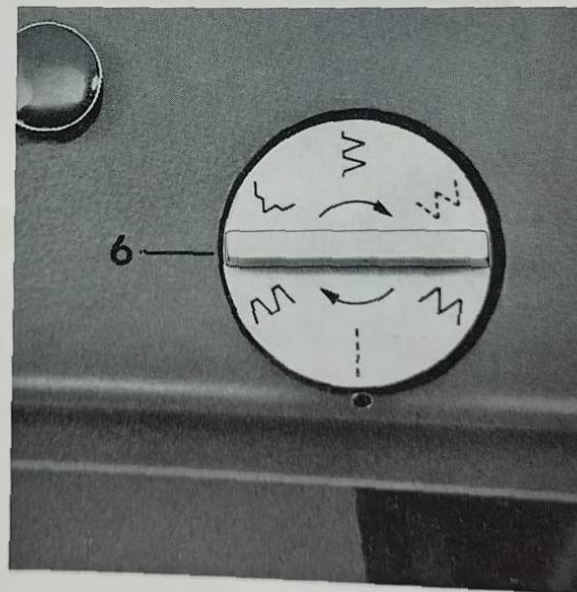


4

Begin by sewing a **straight-stitch seam**.
To this end, push stitch width control (18) to the right as far as it will go.



To sew longer straight-stitch seams, turn utility-stitch control (6) until the straight-stitch symbol is at the bottom (see ill.).



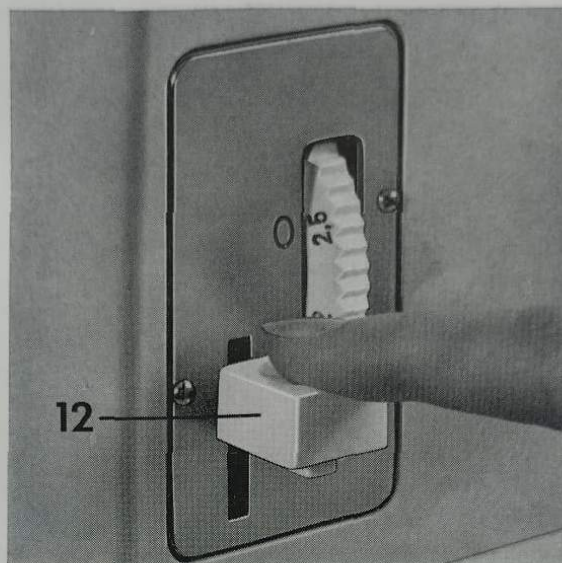
The **stitch length** is regulated by turning stitch length control (11). The number indicating the stitch length chosen should be opposite the dot on the left-hand side of the slot.

For ordinary sewing operations, set the stitch length control on "2".

Place the material under the sewing foot and lower the presser bar lifter.

Place the foot control within easy reach of your foot and press down the pedal. The harder you press, the faster the machine will run.

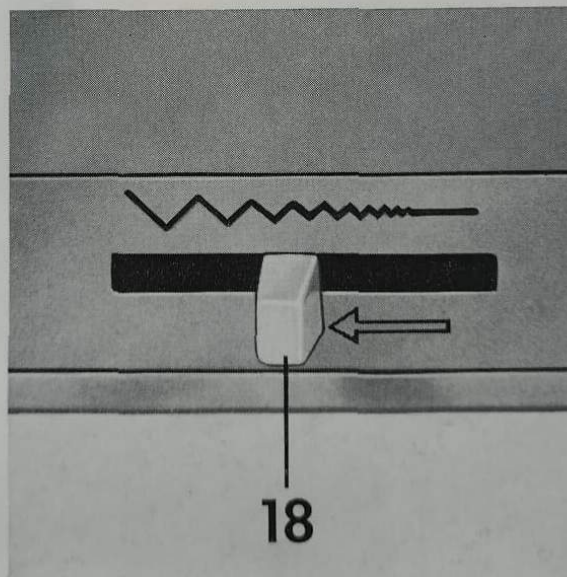
To **sew in reverse** or backtack the end of a seam, simply press down finger tip control (12).



For **zigzag sewing**, turn utility-stitch control (6) until the zigzag-stitch symbol is at the bottom. Then regulate the stitch width by pushing stitch width control (18) toward the left, as desired.

Various zigzag sewing operations are discussed on page 26 and the following pages.

Setting the machine for sewing various utility-stitch seams is explained on page 34, while the following pages contain instructions for various utility-stitch sewing operations.



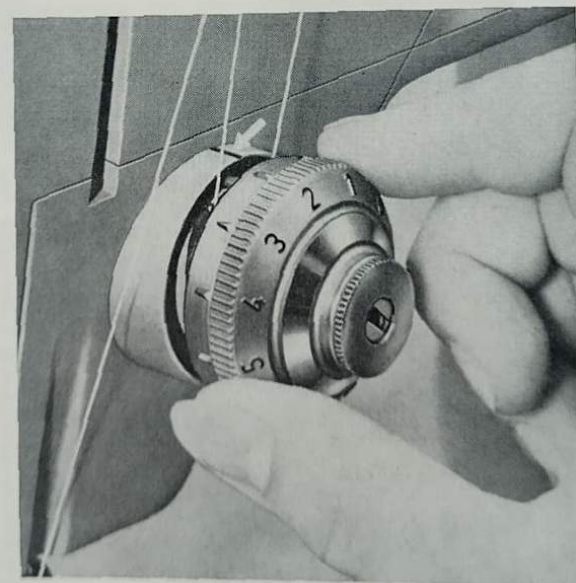
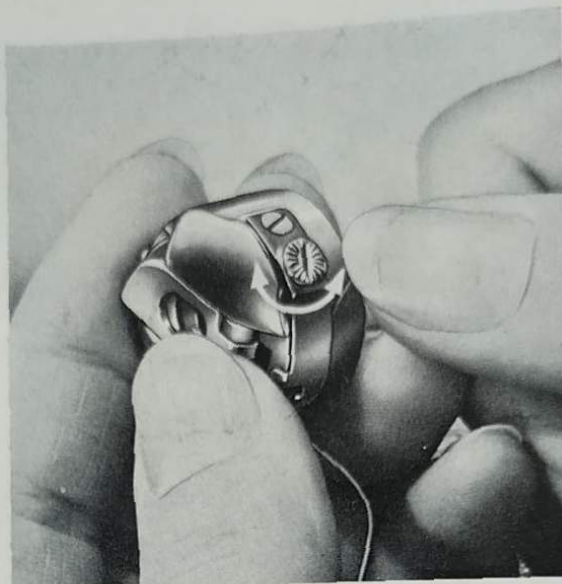
Balanced tensions are essential for sewing. Both tensions are correctly balanced if the needle and bobbin threads interlock in the center of the material.

The **bobbin thread tension** is regulated by turning the small knurled screw on the bobbin case.

Turn this screw right (with your thumb nail) for a tighter tension, or left for a looser tension.

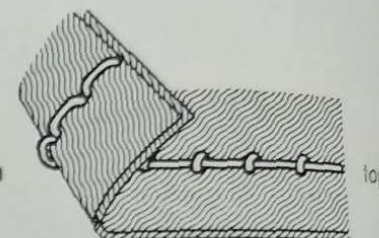
If the same size threads are used in the needle and on the bobbin, there is no need to adjust the bobbin thread tension.

This tension is set correctly if a slight resistance has to be overcome when pulling the thread.



Numbers 0 to 10 indicate different degrees of tension on the **upper tension dial**. The higher the number, the tighter the tension. For ordinary sewing operations, the upper tension should be set at about 5.

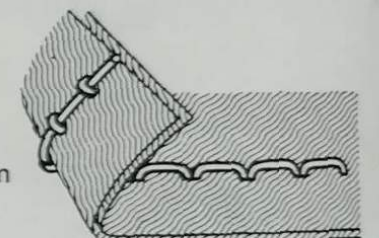
Please note: Ease both tensions somewhat for sewing synthetic fabrics.



bottom

top

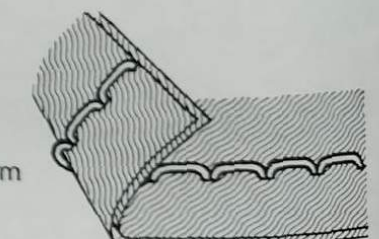
Upper tension too tight or lower tension too loose.



bottom

top

Upper tension too loose or lower tension too tight.



bottom

top

Both tensions correctly balanced.

The accessory box which belongs to your machine contains several **sewing feet** for special sewing operations.

To change the sewing foot, bring the needle to its highest point and raise the foot. Turn out screw (16) until the sewing foot can be removed, tilting it sideways (see Figs. 1 & 2). The new foot is attached in the reverse order.

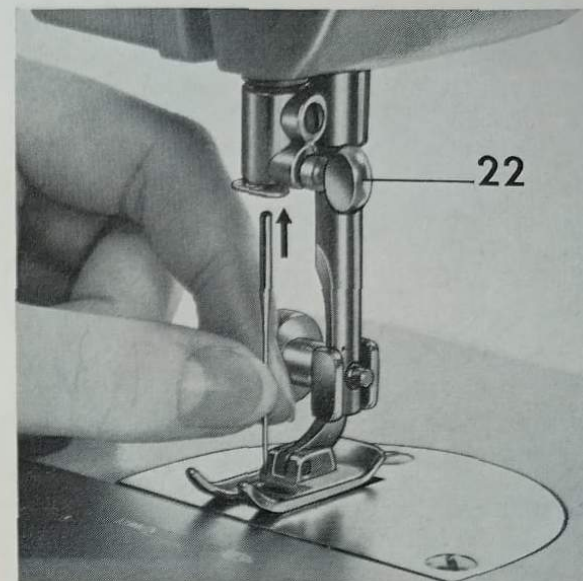
For sewing elastic fabrics, attach ordinary sewing foot No. 93-838 954-00 rather than clear-view sewing foot No. 93-100 179-00.



1



2



3

▲
To **change the needle**, bring the needle bar to its highest point and lower the sewing foot. Loosen needle set screw (22) and pull the old needle out of the needle clamp.

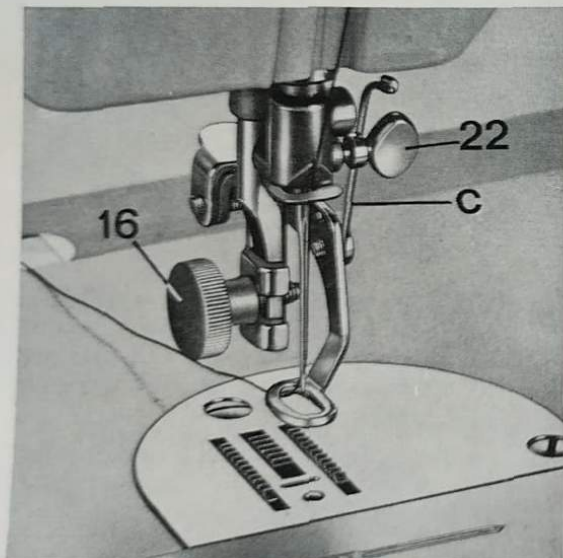
Insert new needle and push it up as far as it will go (Fig. 3), making sure that the flat side of its shank faces toward the back. Tighten screw (22) securely.

Use System 130 R needles only.

Darning

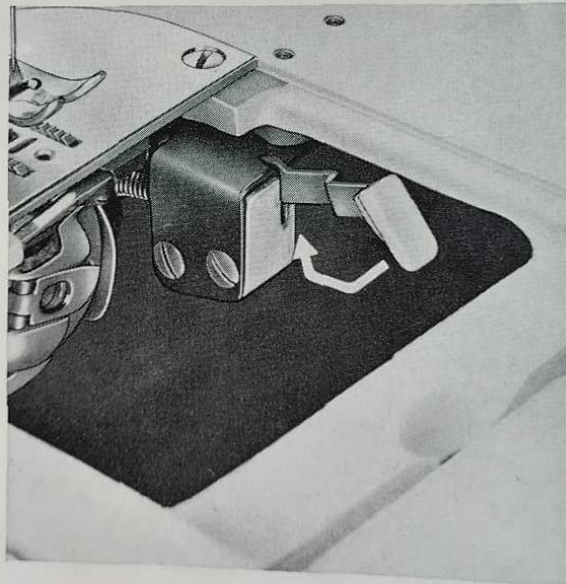
To prepare your machine for darning, proceed as follows:

Replace the ordinary sewing foot by darning foot No. 93-102 826-91, attaching it from the rear so that spring clip **c** rests on needle set screw (22). Tighten sewing foot thumb screw (16). Lower the presser bar lifter.

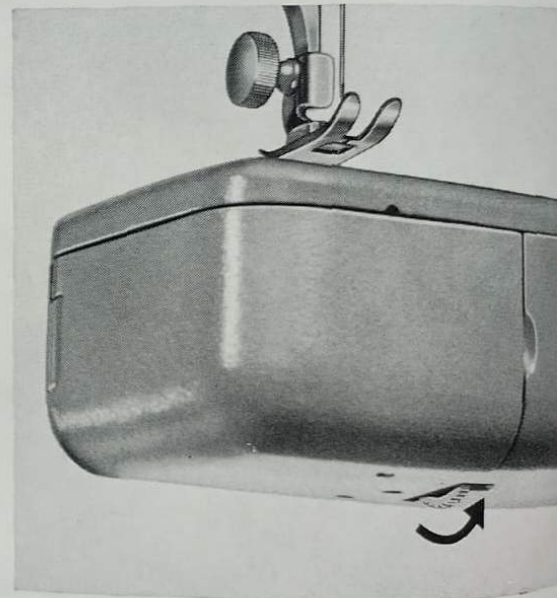


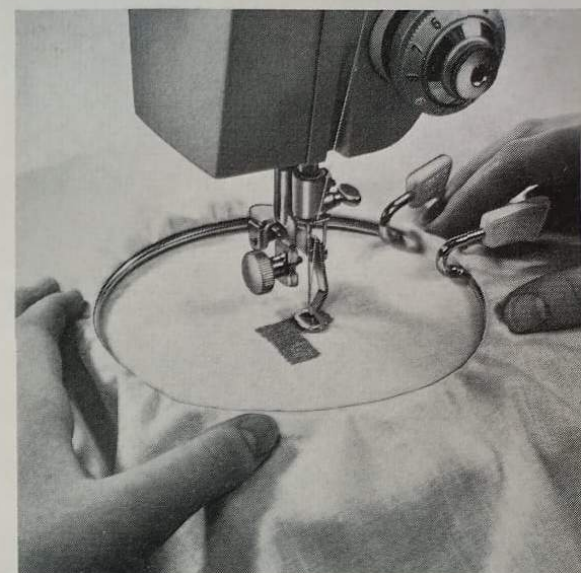
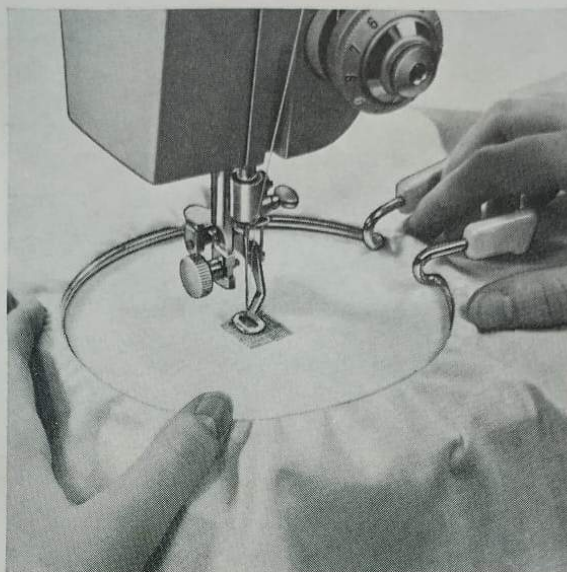
Now drop the **machine feed**. On the **Cl. 96**, this is done by removing bed cover (13) and pressing the drop feed lever down slantwise, as indicated by a white arrow.

To raise the machine feed, press this lever down and let it return to its original position.



On the **Cl. 97**, the machine feed is dropped by simply turning the thumb screw on the underside of the free arm. To raise the machine feed again, turn this screw in the opposite direction.





Darning sheer and soft materials is greatly facilitated by placing them in darning hoops. Draw up the bobbin thread and hold both threads lightly with your left hand while the first stitches are being made. Trim the threads and start stitching back and forth across the hole in sewing direction. Make sure the threads are anchored in the unworn area around the hole.

Turn the fabric at right angles and sew back and forth over the preceding work with short stitches.

Select the darning hoops in a size matching the darning job to be performed.

If the needle thread should break, the upper tension is too tight.

Zipper Insertion



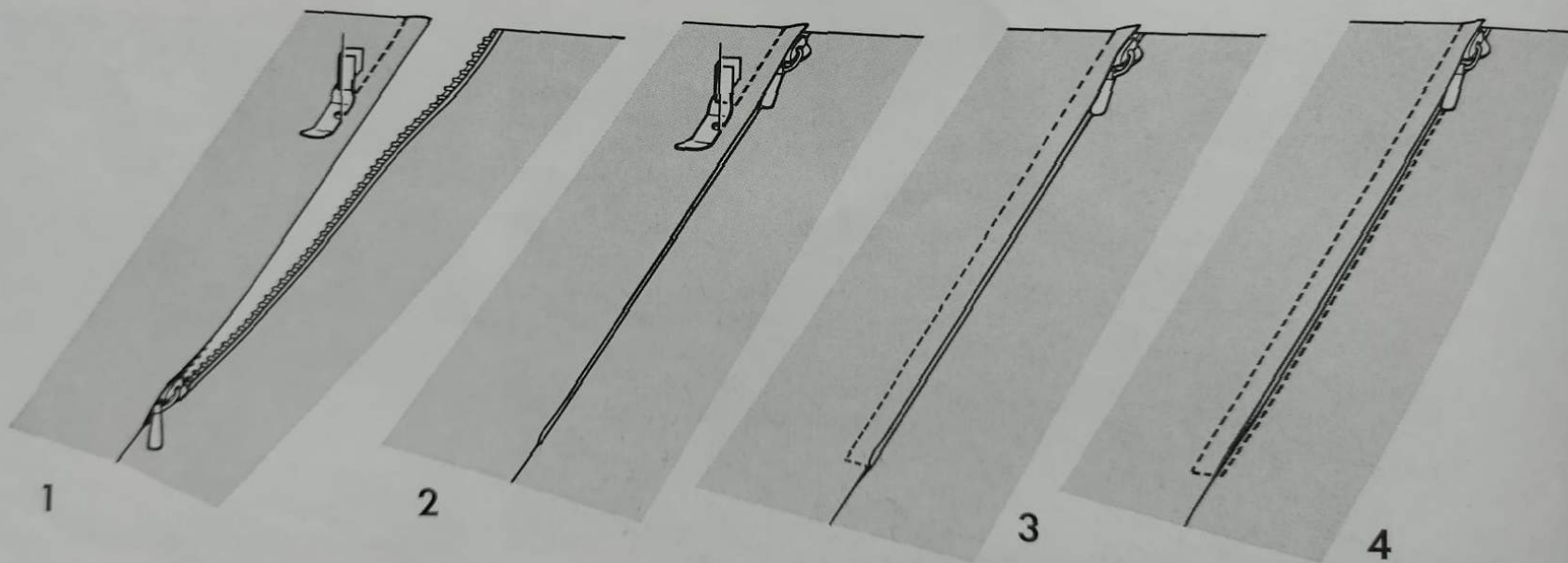
Attach zipper foot without quilting gauge.

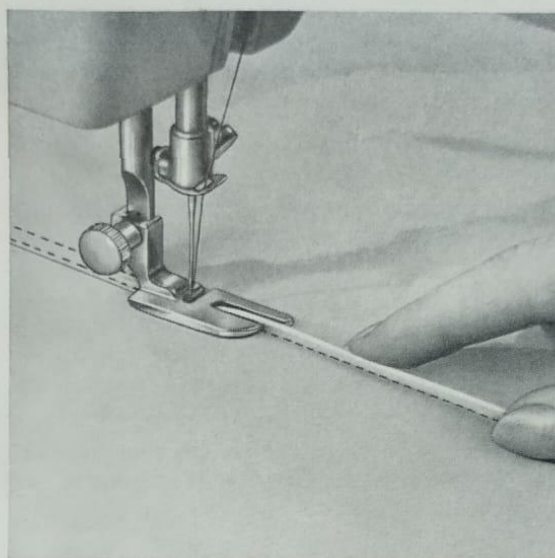
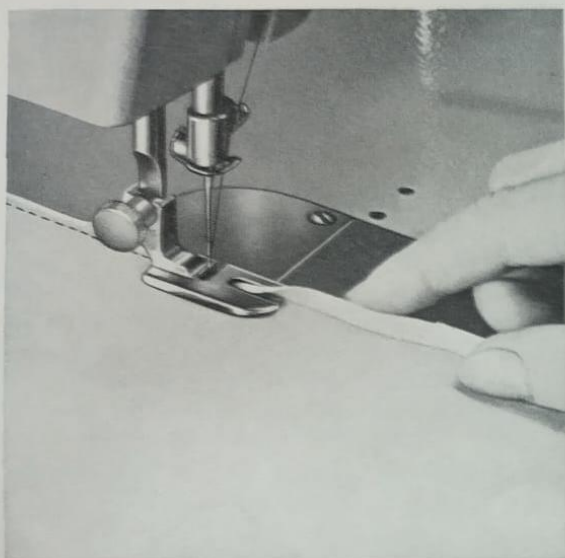
Stitch length: 1.5 to 2

Baste closed zipper on the fabric, then open it. Stitch close to the left edge of the zipper for about 1 inch, guiding the right edge of the foot along the zipper teeth (1). Leave the needle in the material, raise the zipper foot and close the zipper (2).

Continue stitching until you reach the end of the zipper. Then stitch across this end (3) and up the other side.

The finished zipper closure is shown in Fig. 4.





Flat Felled Seams



Attach felling foot
No. 93-847 561-00.
Stitch length: 1.5 to 2

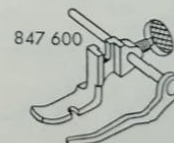
Flat felled seams are used to durably join two pieces of fabric and are usually straight-stitched.

First Seam: Lay pieces together with the right sides facing and the bottom piece protruding about $\frac{1}{8}$ inch. Make sure the fabric enters the felling foot evenly and the bottom fabric is folded over the edge of the top piece (see ill. at left), but the top piece is not folded.

Open the two pieces.

Second Seam: Lightly tension the fabric by pressing it against the needle plate in front of the foot. Insert the seam ridge into the felling foot and stitch down (see ill. at right).

Quilting



Use zipper foot No. 93-847 600-00 with quilting gauge for sewing parallel seams over the entire surface of the fabric.

Hemming



Attach hemmer foot

No. 93-847 551-00

Stitch length: 1.5 to 2

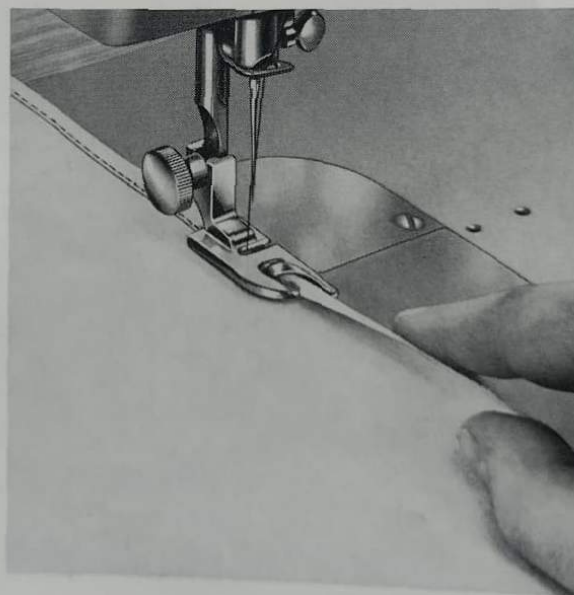
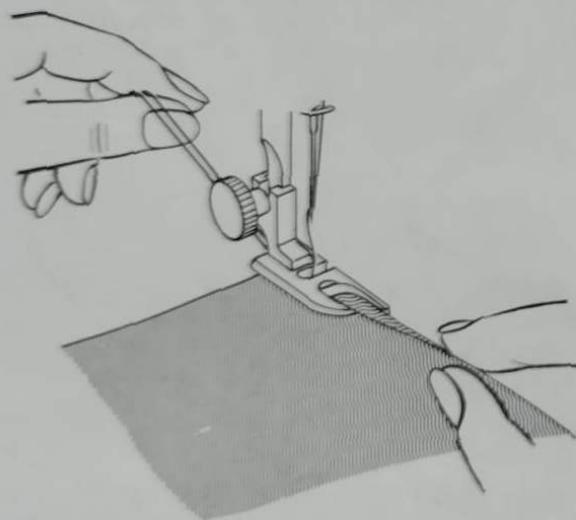
Fold to beginning of the fabric edge twice, making a hem about $\frac{1}{8}$ inch wide and several inches long. Place the material under the hemmer foot and lower the same.

Make 3 to 4 straight stitches to secure the folded edge *in place*.

Draw the fabric into the hemmer by pulling both threads backwards, as shown in the drawing.

Feed the fabric edge into the hemmer foot scroll with your right hand (see ill.), making sure that the scroll is well filled with fabric at all times and the fabric does not slip sideways under the right half of the foot.

To produce an elastic hem on soft fabrics, use zigzag stitches. Set the stitch width, as instructed on p. 25.



Cording

Use ordinary sewing foot No. 93-838 954-00, and insert a twin needle (which can be obtained from your sewing machine dealer).

Stitch length: 1.5 to 2

Cording is made with two needle threads. When threading the needles, make sure to lead each thread between a separate pair of tension discs (see ill.).

To render your cording more prominent, insert a filler cord. Select the twin needle gauge and the size of the filler cord to suit the type of material used. The thicker the fabric the wider the needle gauge.

Lace the filler cord through the hole in the needle plate, as illustrated.

Hold both needle threads lightly and rotate the balance wheel to draw up the bobbin thread.

The smallest distance between cording seams made with the ordinary sewing foot is abt. $\frac{1}{4}$ inch. For narrower cording, use one of the cording feet listed below.

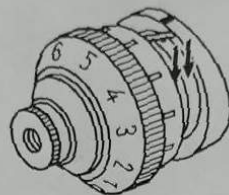
To make different size cording, the following twin needles and cording feet can be supplied at extra cost.

Twin needles for needle distances of 1.2 ($\frac{3}{64}$ "), 1.6 ($\frac{1}{16}$ "), 1.8, 2.0 ($\frac{5}{64}$ "), 2.5 ($\frac{3}{32}$ "), 3.0 and 4.0 ($\frac{5}{32}$ ") mm.

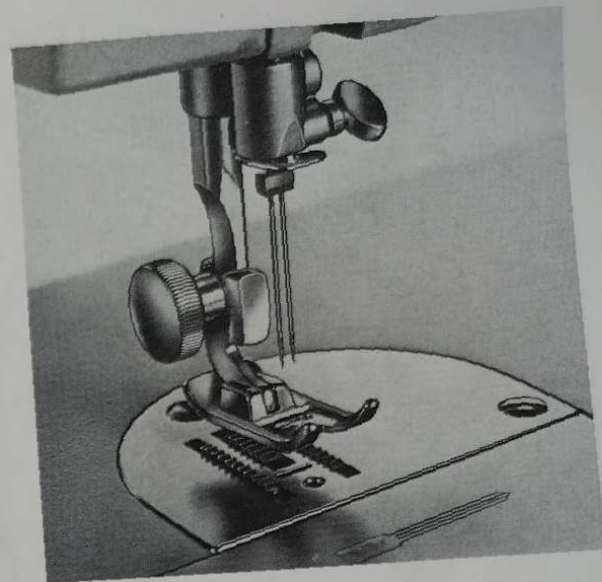
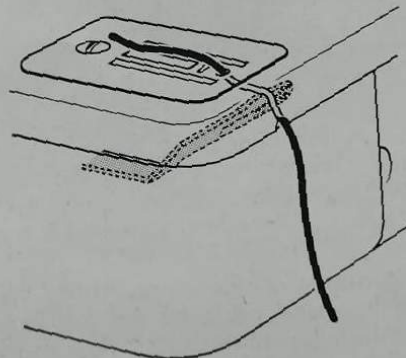
Cording foot No. 93-847 671-00 with 3 grooves is used for heavy materials,

cording foot No. 93-847 675-00 with 5 grooves for medium-heavy fabrics, and

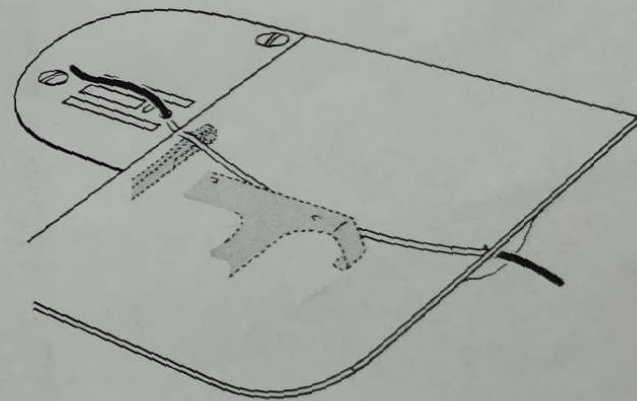
cording foot No. 93-847 680-00 with 7 grooves for lightweight materials.



Cl. 97



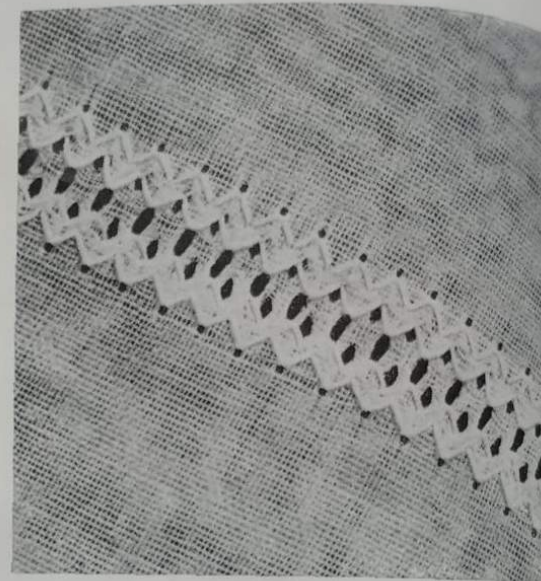
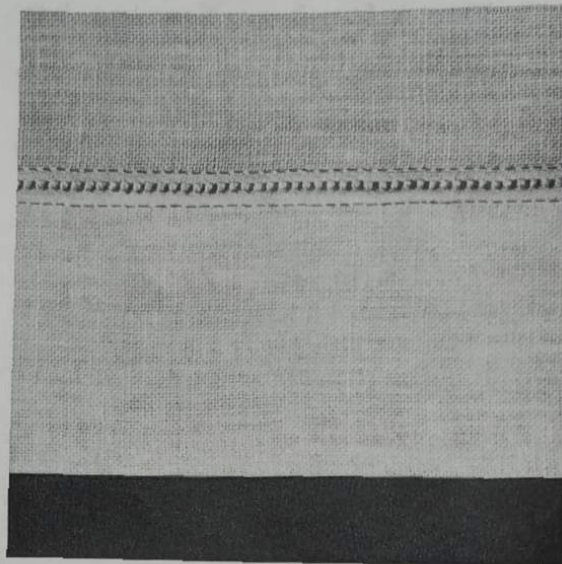
Cl. 96



Hemstitching



Use clear-view sewing
foot No. 93-100 179-00
Stitch length: 2 to 2.5



Use a thread which is not too heavy and matches the material being hemstitched (preferably a No. 50 embroidery thread).

Insert a System 130 Zwi-Ho needle.

Make sure the needle and bobbin threads are the same size. The threading procedure is the same as for cording work. Slightly increase the needle thread tension.

The hemstitching effect is produced by the left wing needle penetrating the fabric. Turn the fabric by half a turn and sew the second seam, guiding the material so that the wing needle enters the needle holes it has made in the fabric previously.

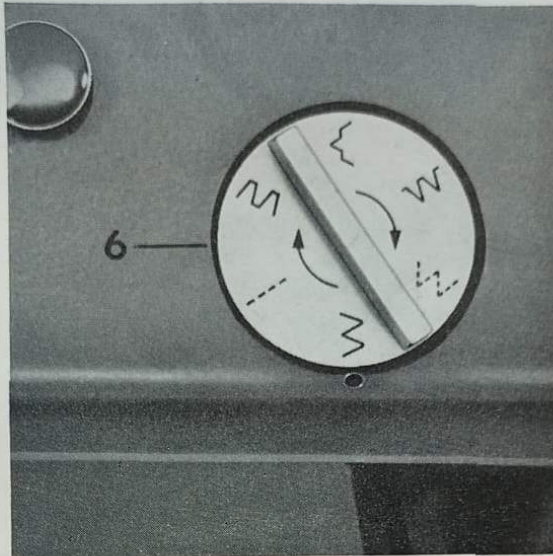
You can produce a nice hemstitching effect along the hemmed edge of the fabric (see ill.) by guiding the material so that the left needle stitches into the fabric close to the hem.

Zigzag Stitching

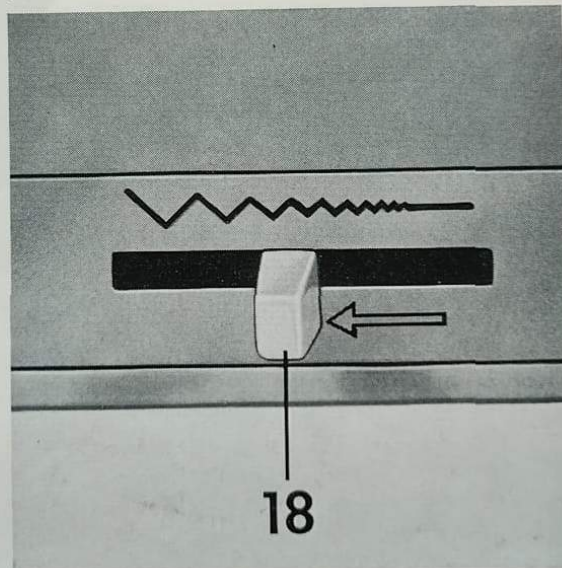
Turn utility-stitch control (6) clockwise until the zigzag-stitch symbol is at the bottom.

The stitch width is regulated by pushing stitch width control (18) toward the left, as may be desired (Fig. 2).

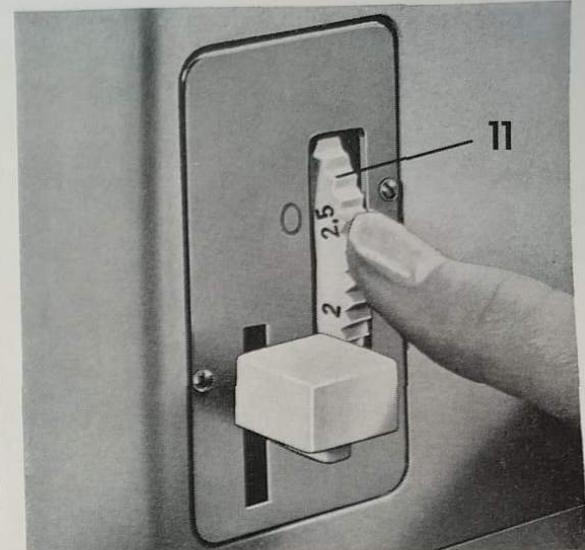
Never change the stitch width setting unless the needle is outside the fabric.



1



2



3

The stitch length is regulated by turning stitch length control (11), as illustrated in Fig. 3.

Overcasting Edges with Zigzag Stitches

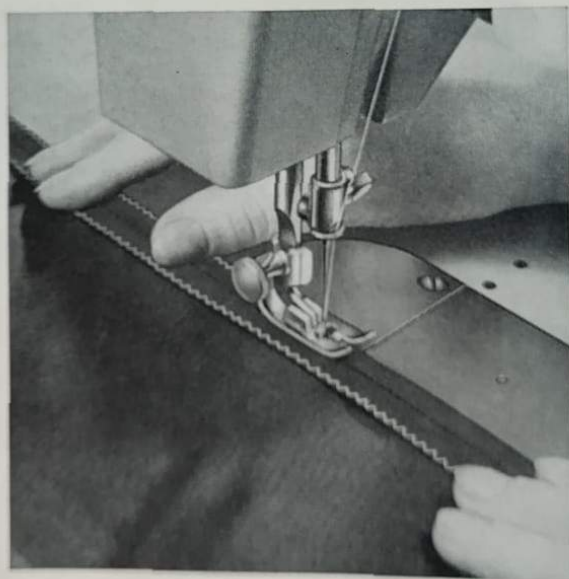


Attach ordinary sewing foot.
Turn utility-stitch control (6) to zigzag-stitch symbol.
Stitch length: 2

To overcast the edges of light and medium-weight fabrics, set the machine for its maximum stitch width.

Soft and flimsy fabrics are best overcast with a zigzag stitch of medium width.

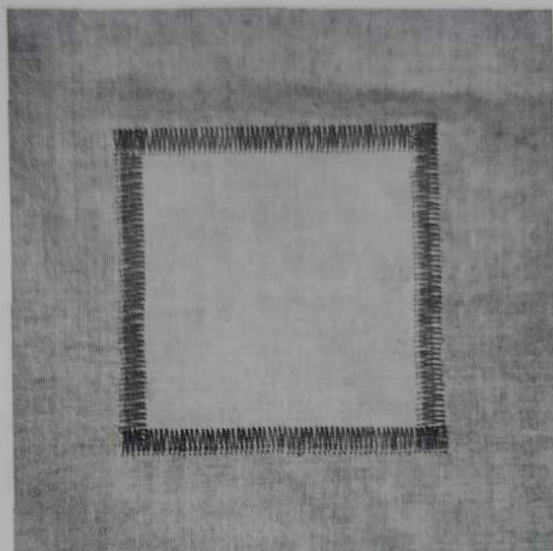
Make sure the needle takes one stitch into the fabric and the other over its edge. This will cover the fabric edge securely.



Inserting Patches



Attach ordinary sewing foot.
Stitch width: medium.



Larger holes can be patches quickly. Trim away the ragged edges around the hole, cutting exactly along the fabric yarns.

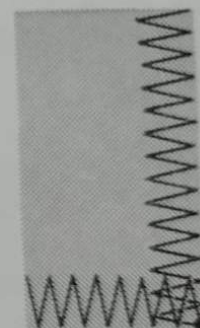
Cut a patch about $\frac{1}{2}$ inch larger than the hole and place it under the hole, matching its grain to that of the fabric.

Set the stitch length control on "1" and the stitch width control in the middle of its slot and stitch along the edge of the patch.

Set the stitch length control on "0.5" and the stitch width control at the extreme left of its slot and sew over first seam.

At the corners, stop the machine with the needle down in the material on the right of its throw. Then turn the fabric so that the corners are stitched twice (see ill.). Trim away the excess material on the wrong side.

Elastic materials are patched in the same manner.



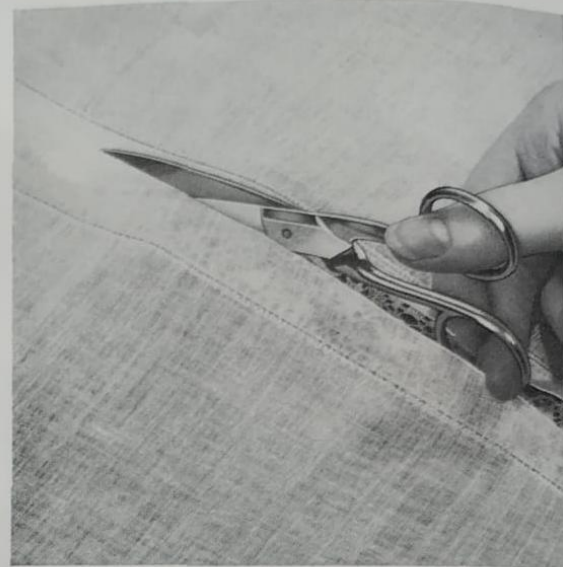
Inserting Lace



Attach ordinary sewing foot.
Stitch length: 1



1



2



3



4

Place the lace on the material and stitch it down with straight stitches on both sides (1).

Cut the fabric open under the lace insertion (2) and iron it on both sides of the lace.

Turn the fabric to the right side and sew over the edges of the lace with short zigzag stitches of medium width (3).

Trim the fabric edges away on the wrong side (4).

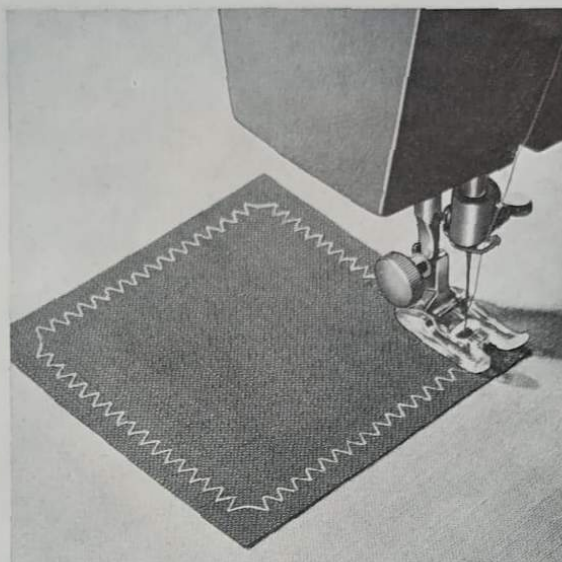
Appliqué Work



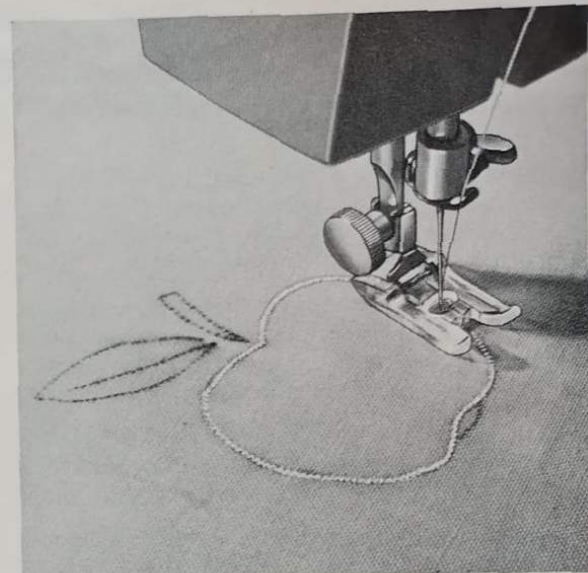
Use clear-view sewing foot No. 93-100 179-00.

To make appliqué, proceed as follow:

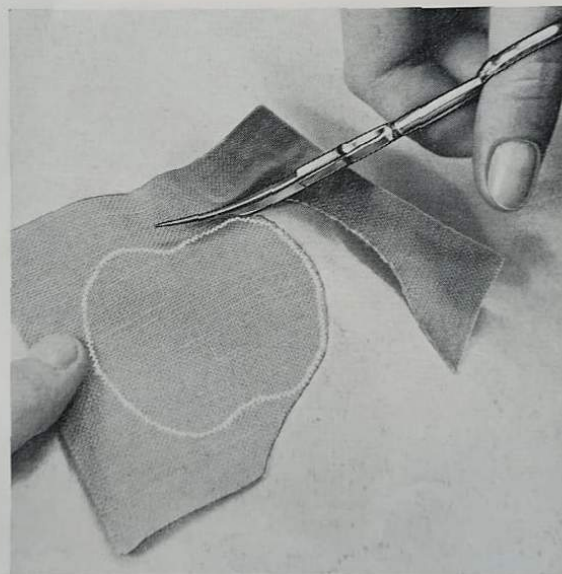
1. Trace the design on the right side.
2. Set the stitch length control on "1" and stitch along the outlines.
3. Sew the fabric to be appliquéd to the right side with long stitches (1).
4. Follow the outlines of the design on the wrong side with a narrow zigzag stitch (stitch length control on "1"), as shown (2).
5. Trim the excess material close to the seam on the right side (3).
6. Sew over the edges of the appliqué with closely packed zigzag stitches (stitch length: 0.2; stitch width: medium), as illustrated (4).



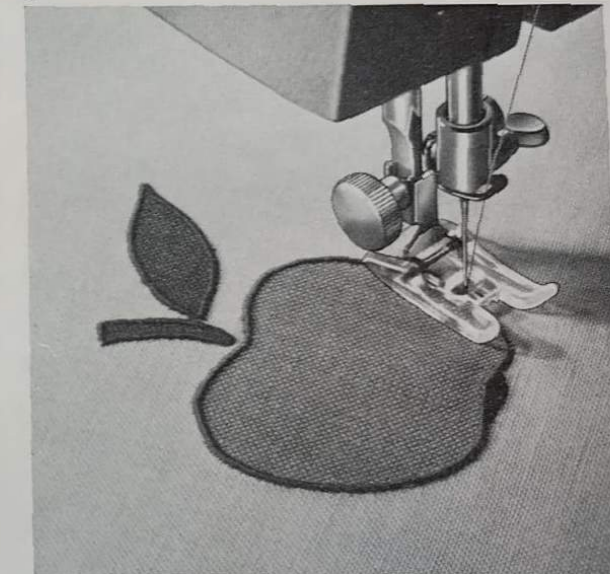
1



2



3



4

Monogram Embroidery

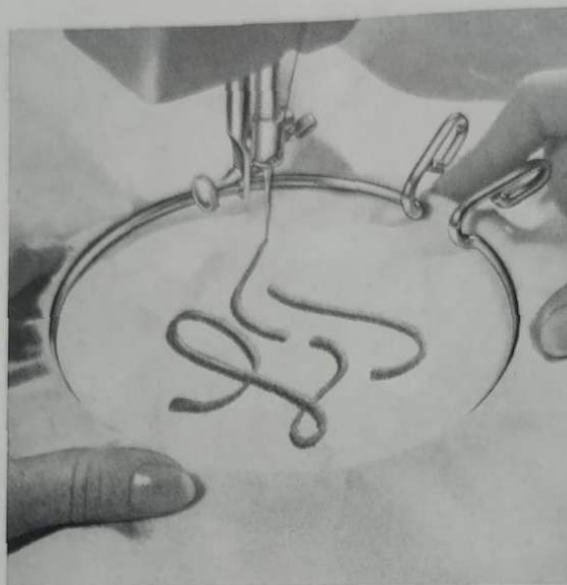
Regulate the stitch width to suit the size of the monogram.

Remove the sewing foot and drop the machine feed. Lower the presser bar lifter. Trace the monogram on the fabric and place the material in darning hoops.

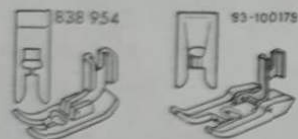
Let the needle stitch into the fabric at the beginning of the design and draw the bobbin thread up through the fabric. Hold both thread ends and start your machine.

Slowly move the hoops in "writing" direction, without turning them, while the machine is running at high speed.

To give your monogram dimensional quality, embroider the outlines twice.



Sewing Curtains

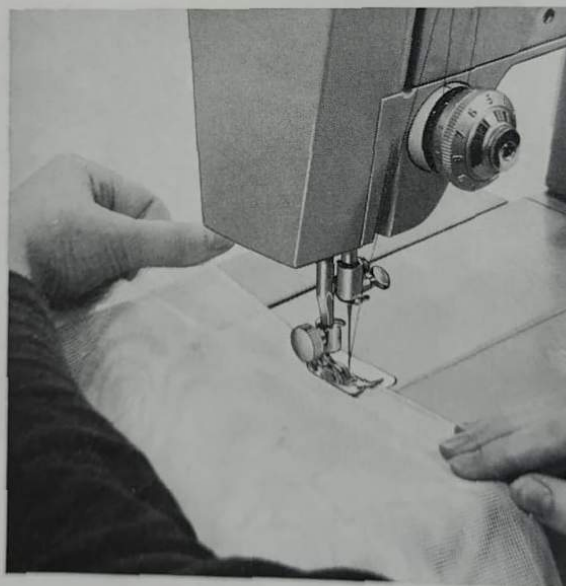


Stitch length: 2.5 to 3

Stitch width: medium

Use a thin needle (see Needle and Thread Chart).

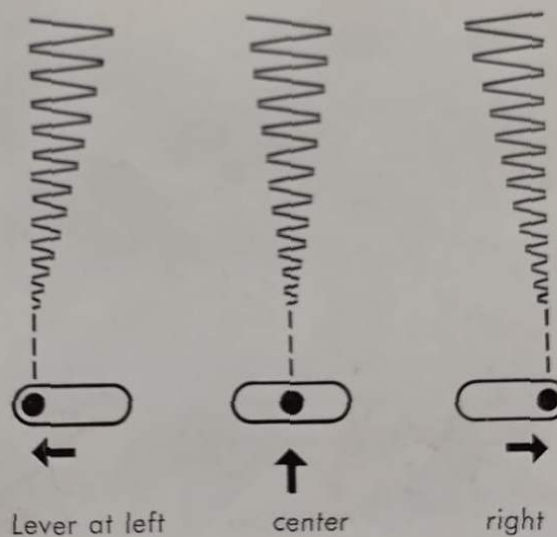
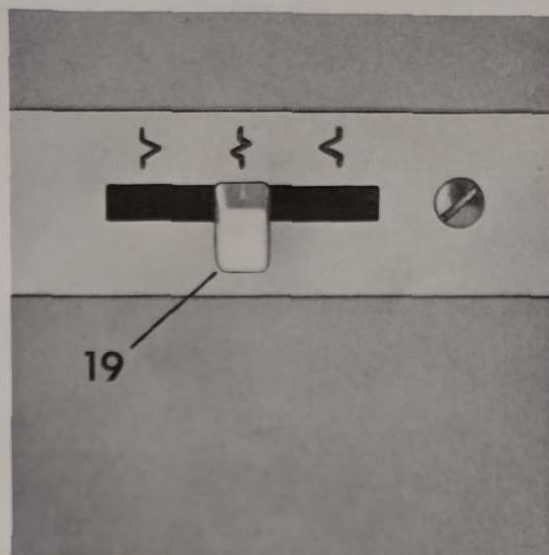
Ease the needle thread tension somewhat. Hold synthetic materials a little taut while sewing.



Changing the Needle Position

Some special sewing jobs are made with the needle switched to the right or left of the needle plate slot. This is done by moving lever (19) to the right and left, respectively.

The needle position lever is indispensable for sewing on buttons and sewing button-holes, for instance.



Button Sewing

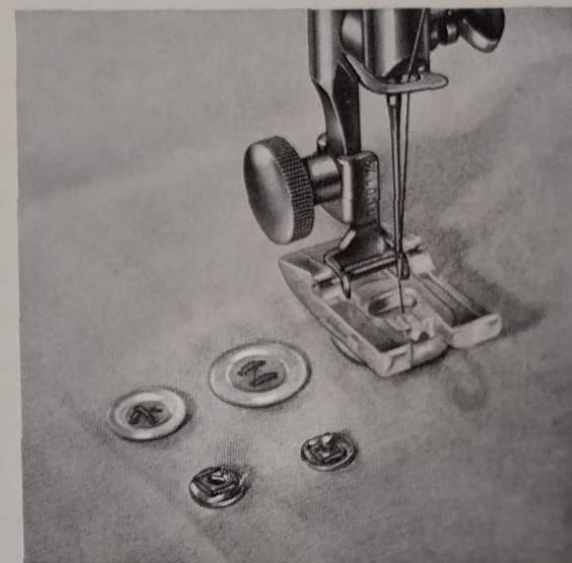
Attach clear-view sewing foot No. 93-100 179-00.

Flick the needle to its right position and drop the machine feed.

Place the button under the foot and align so that needle will enter the right hole.

Raise the needle, but retain the foot in its lowered position. Turn the utility-stitch control to the zigzag-stitch symbol and regulate the stitch width until the needle alternately stitches through both holes. Sew on the button.

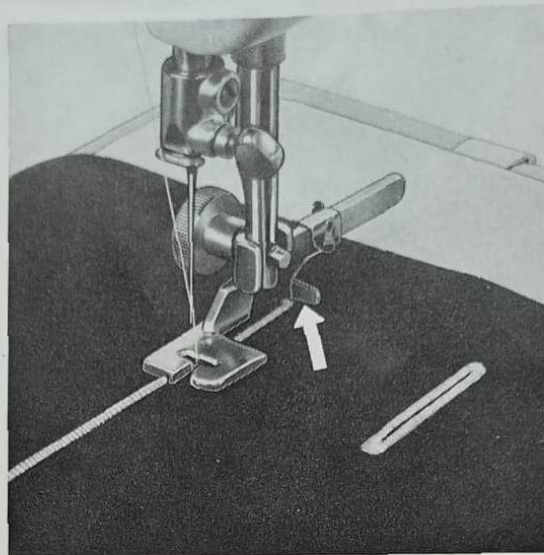
Move stitch width control (18) toward the right and make two or three tying stitches.



Sewing Buttonholes

Apply buttonhole foot No. 93-847 616-00.

Attach buttonhole foot to the machine and set the slide on the buttonhole gauge to the buttonhole length desired (Fig. 1). The number indicating the buttonhole length should be in line with the right edge of the slide. The buttonhole is the right length when the beginning of the first seam reaches the red end of the slide indicator (see arrow).



1

Flick needle position lever (19) to the left (Fig. 2) and put stitch width control (18) in notch **R1** (Fig. 3).

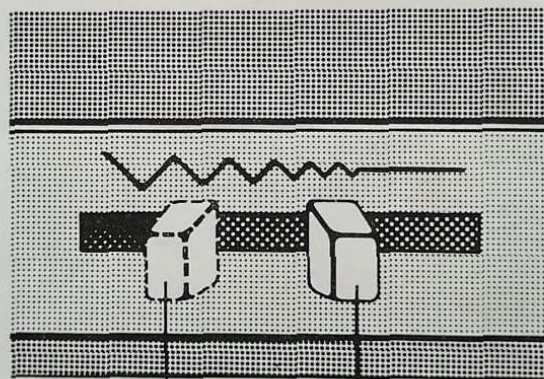
Turn utility-stitch control (6) to zigzag-stitch symbol.

When using No. 50 embroidery thread, set the stitch length control so that both dots are opposite each other (Fig. 4).

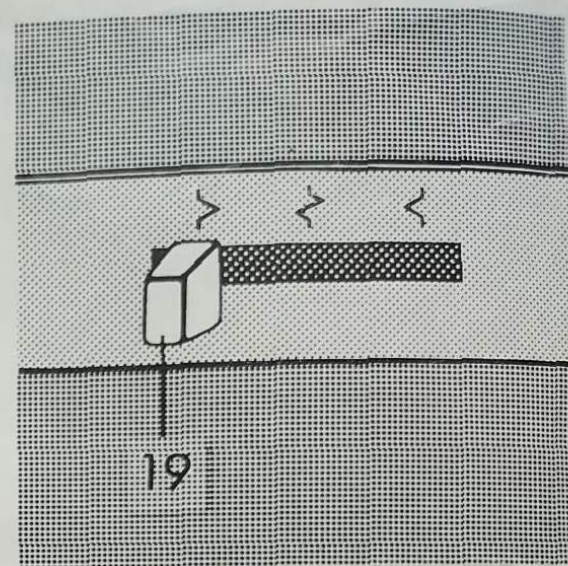
For heavier threads, slightly increase the stitch length.

To obtain more prominent buttonholes, place a filler cord of medium size in the left groove of the sewing foot.

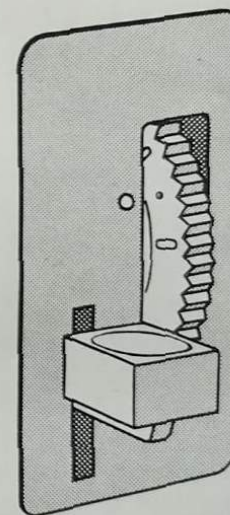
All-purpose sewing foot No. 91-100 179-00 may also be used for this operation.



3



2



4

Sew the first seam over the filler cord. When the buttonhole is the right length, leave the needle in the fabric on the right of its throw (1).

Lift the sewing foot, turn the fabric around clockwise by half a turn, place the filler cord around the needle and pull it forward, placing it in the left groove of the foot.

Lower the foot and let the needle descend on the left of its throw (3).

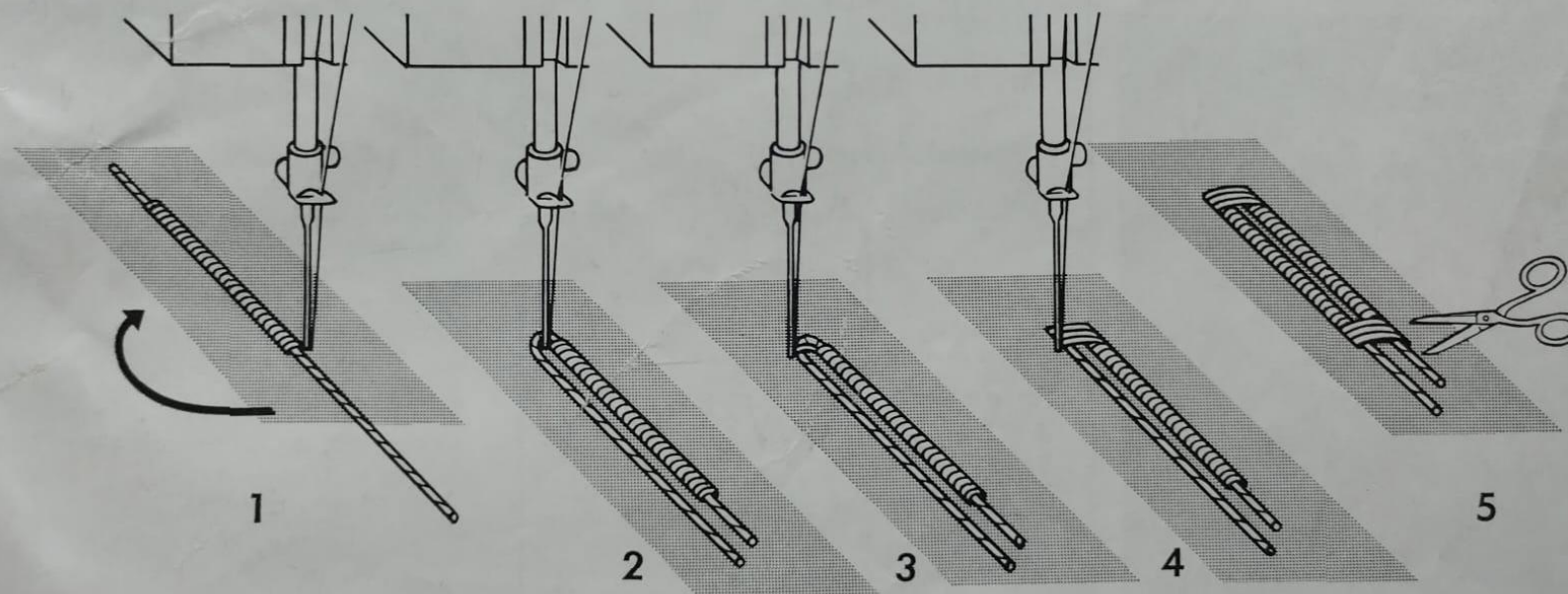
Move stitch width control (18) to the second notch **R 2**, make 4 to 6 bartack stitches, slightly holding the materials to reduce the length of bar (4).

Push stitch width control (18) back to the first notch **R 1** and sew the second buttonhole seam, stopping about $\frac{1}{16}$ inch from the end of the first seam.

Push stitch width control (18) to the second notch **R 2** and sew the second tack, slightly holding the material to reduce the length of bar. Flick the stitch width control all the way to right and make 3 to 4 fastening stitches.

Slightly pull the filler cord and trim it close to the bar (5).

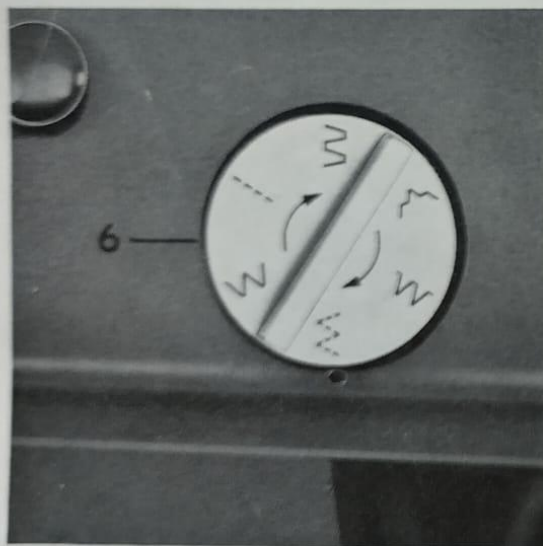
Open the buttonhole with your seam ripper which is included in the accessory box.



Utility-Stitch Seams

To set the machine for utility-stitch sewing, turn control (6) clockwise (as indicated by arrows) until the symbol of the desired stitch is opposite the dot at the bottom (see ill.).

The stitch width is regulated by moving control (18) to the right or left, as may be desired. The stitch width recommended for the various utility-stitch sewing operations is indicated in the respective instructions.



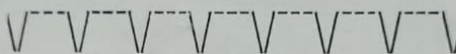
Zigzag seam



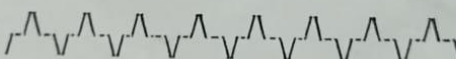
Elastic seam



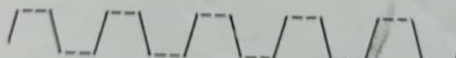
Blindstitch seam



"Pinnacle" seam



"Lamp-shade" seam



Application

Ordinary zigzag seams.

Sewing on elastic, inserting patches in knitted fabrics, automatic darning of rips and worn areas, finishing edges of lightweight fabrics.

Blindstitch seam, shell edging, joining knitted fabrics, making borders.

Sewing terry cloth, inserting patches, sewing stockings with elastic thread, attaching lace edging, couching.

Elastic edge finishing, inseams of Helanca slacks, sewing on braiding and borders.

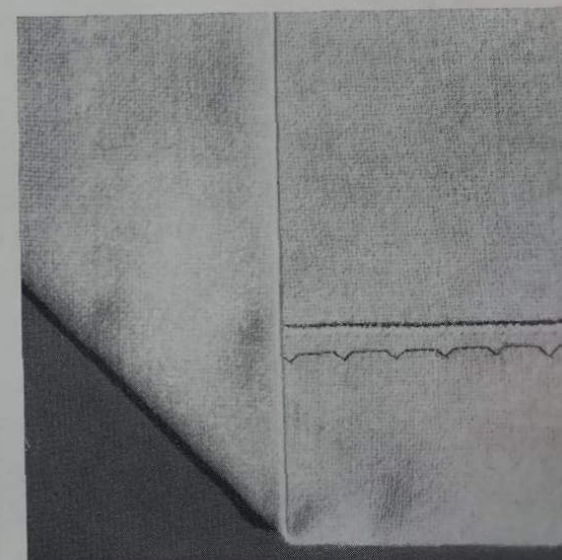
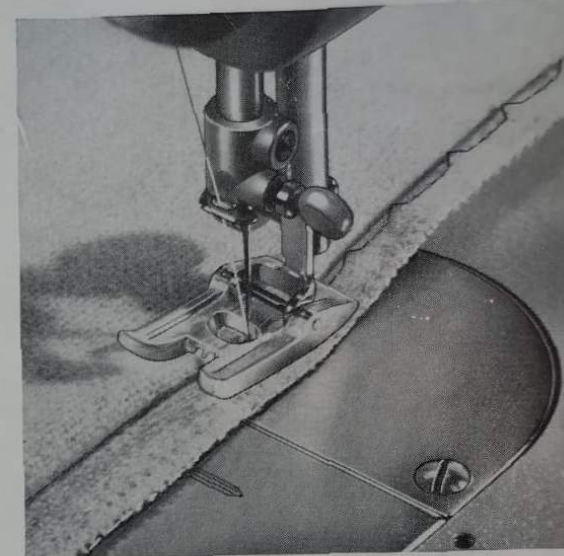
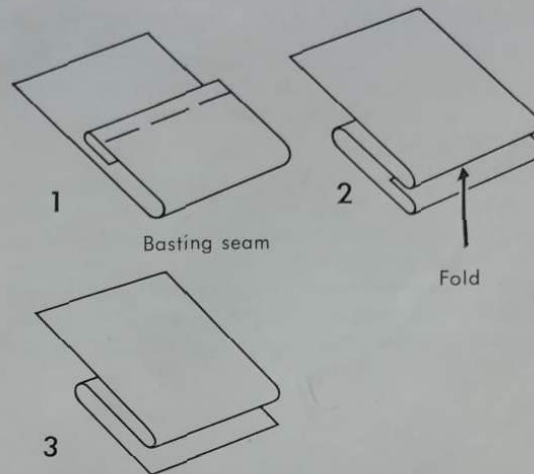
Blindstitching



Apply clear-view sewing foot No. 91-100 179-00.

Turn utility-stitch control (6) to blindstitch symbol (see p. 34)

Stitch length: 2-3



Baste the hem about $\frac{3}{16}$ inch from the fabric edge, as illustrated (1).

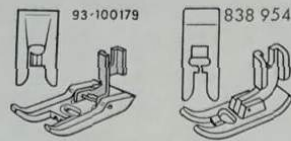
Reduce the needle thread tension by one grade.

Fold the hem (2) and place the fabric under the sewing foot so that the folded edge is in line with the left groove of the foot (see ill. at top). Regulate the stitch width so that the needle takes the left stitch exactly in the folded edge, catching merely one fabric yarn.

Please note:

Fold the hem of heavy woolens only once (3) and finish the raw edge with zigzag stitches before it is hemmed.

Shell Edging

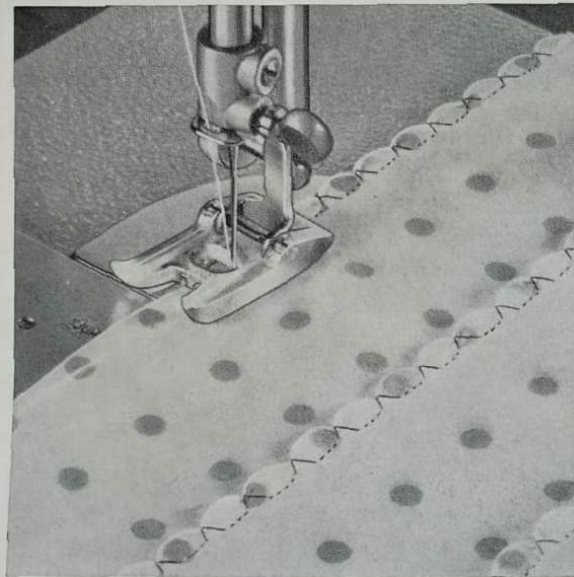


Attach clear-view sewing foot No. 93-100 179-00 or ordinary sewing foot No. 93-838 954-00).

Turn utility-stitch control (6) to blindstitch symbol.

Push stitch width lever (18) to the left as far as it will go (maximum stitch width).

Stitch length: 0.5 to 2



Slightly increase the tension for non-elastic fabrics.

Shell edging makes a nice trimming on lingerie or garments made of delicate, soft fabrics or tricot.

Fold the fabric along the line which is to be enhanced by shell edging. Sew along this folded edge with the needle alternately taking one stitch into the fabric and the other over its edge. As the threads are interlocked outside the fabric, the fabric edge is drawn inwardly, thus producing a shell edging effect.



Sewing Knit Underwear



Attach the ordinary sewing foot.

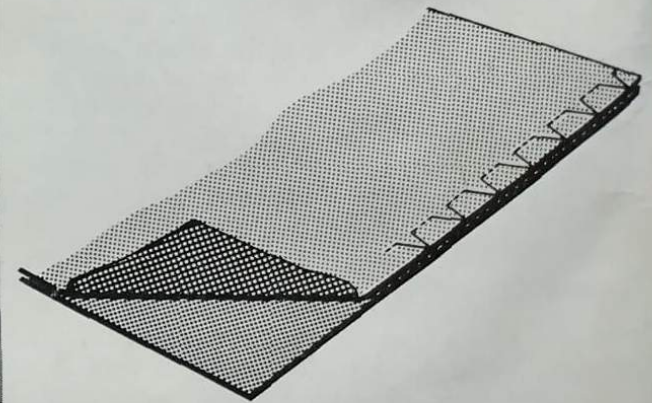
Turn utility-stitch control (6) to blindstitch symbol.

Maximum stitch length: 0.5

Set stitch width lever (18) for a zigzag stitch of medium to maximum width.

The blindstitch seam is ideally suited for sewing knit underwear and finishing the edges of the fabric.

Place the two pieces of material to be joined one on top of the other and sew along the edge so that the needle alternately stitches into the fabric and over its edge (see drawing).



Inserting Patches

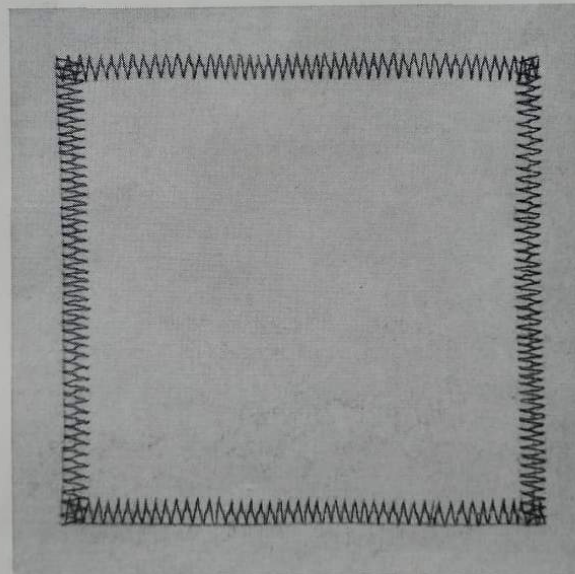


Apply the ordinary sewing foot.

Turn utility-stitch control (6) to the symbol of the pinnacle seam (see p. 34).

Maximum stitch length: 0.5

Stitch width: maximum



Cut the patch a little larger than the damaged area and place it over the thin spot so that its grain matches the rest of the fabric.

Sew the patch down by stitching along its edges. Turn the material over and trim close to the seams.

The seam which joins the patch to the fabric is highly elastic.

Stitching Terry Cloth



Attach the ordinary sewing foot.

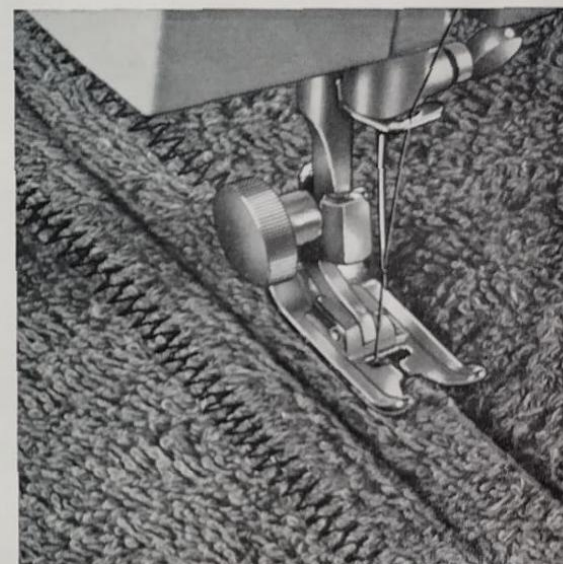
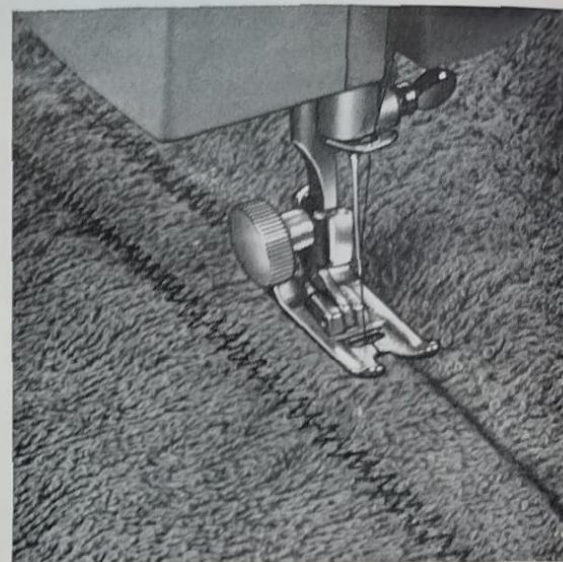
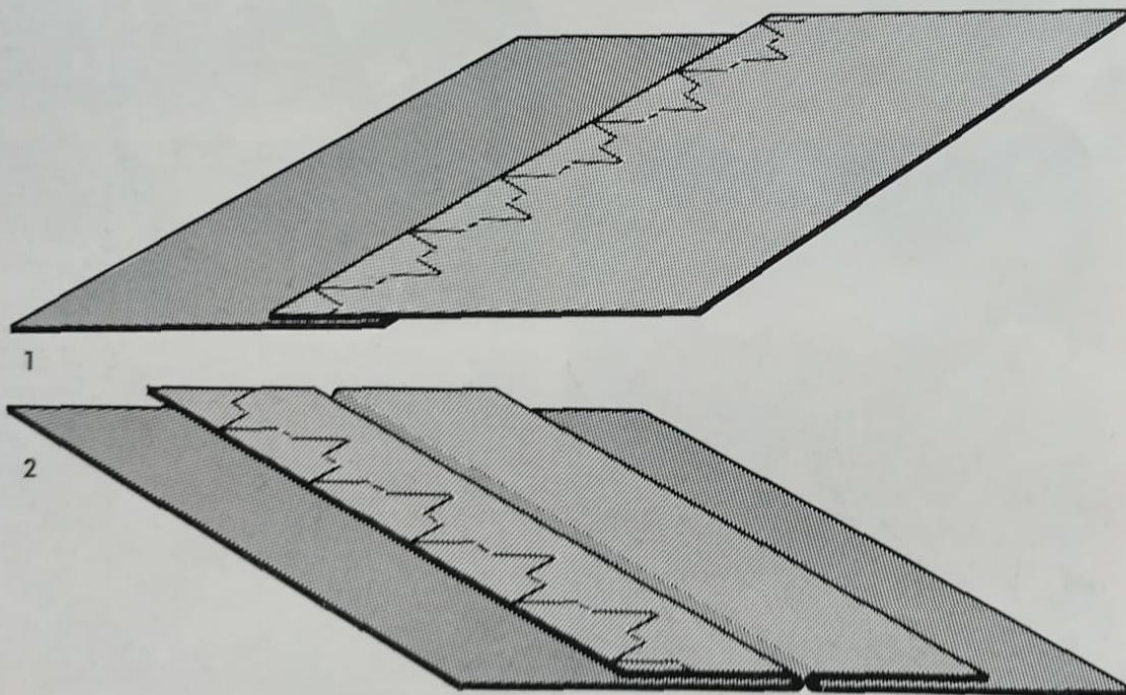
Turn utility-stitch control (6) to the symbol of the pinnacle seam.

Stitch length: 0.5

Stitch width: maximum

Place both pieces of material on top of each other with their edges overlapping about $\frac{1}{2}$ " (1). Sew down one cut edge, then turn fabric and stitch down second cut edge.

If the seam is exposed to great stress, lay the two fabric edges together, one over the other, and join them with straight stitches (setting both the stitch length and stitch width controls on 1.5 to 2). Press the seam open, then sew the raw edges down with utility stitches (2).



Darning Rips

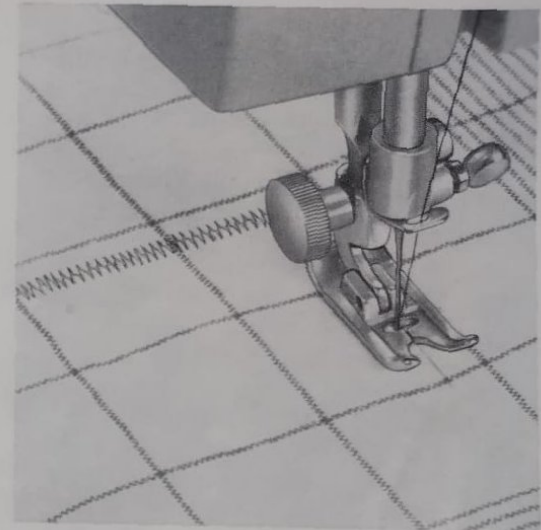


Apply the ordinary sewing foot.

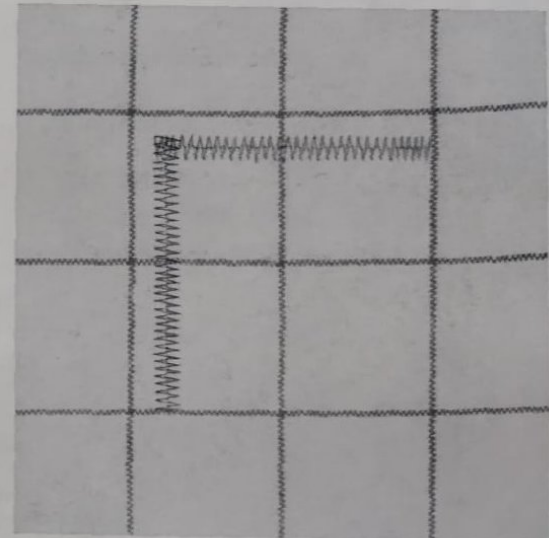
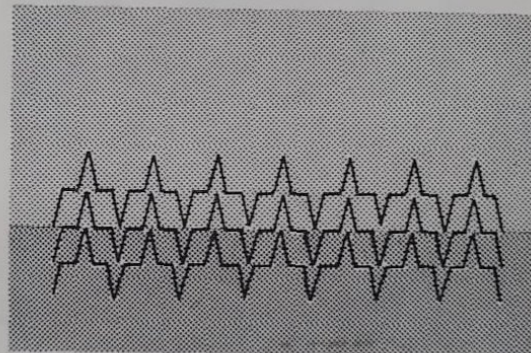
Turn utility-stitch control (6) to the symbol of the pinnacle seam.

Maximum stitch length: 0.5

Stitch width: maximum



Place a suitable piece of material under the rip and close the rip with the needle stitching alternately into the material on the right and left. If the edges of the rip are ragged, sew along the first seam on the right and left of the rip, overlapping the seams.



Butt Seaming



Use the ordinary sewing foot.

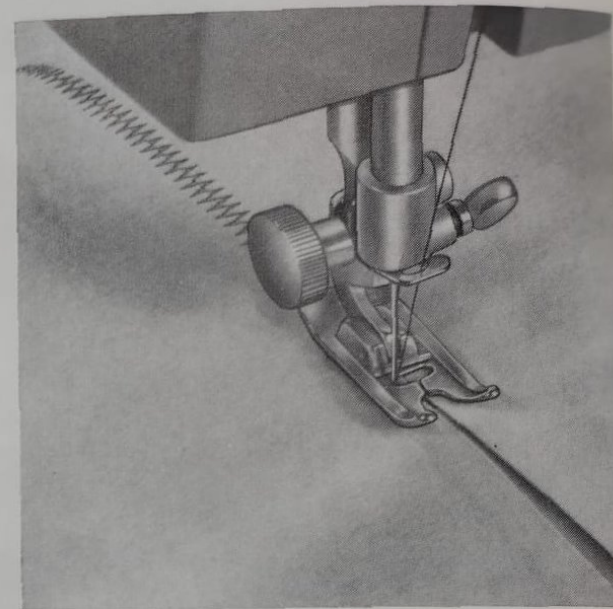
Turn utility-stitch control (6) to the symbol of the pinnacle seam.

Maximum stitch length: 0.5

Stitch width: maximum

Turn both raw edges about $\frac{1}{2}$ " to wrong side and press. Lay both pieces under the needle with their folded edges abutting and sew together with utility stitches (see ill.). Trim excess material on wrong side.

If the fabric has a firm selvaged edge, the edges need not be folded and pressed. Simply place both pieces under the sewing foot so that the abutted edges are centered under the needle and join them, as instructed above.



Mending Hems



Apply the ordinary sewing foot.

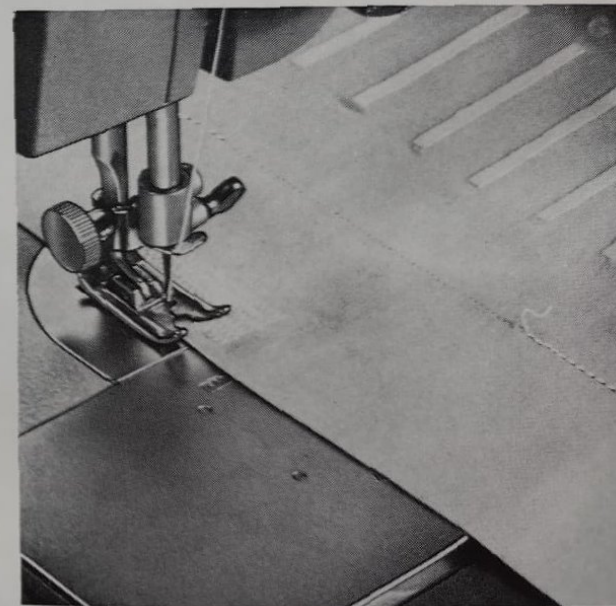
Turn utility-stitch control (6) to the symbol of the elastic seam.

Maximum stitch length: 0.5

Stitch width: maximum

Rip open the section of the hem seam opposite the damaged area. Take a piece of suitable material in the right size, fold it on the double and press. Then insert this piece in the hem so that its folded edge is in line with the folded edge of the hem.

Sew it down with utility stitches, overlapping the seams.



Sewing on Elastic



Attach the ordinary sewing foot.

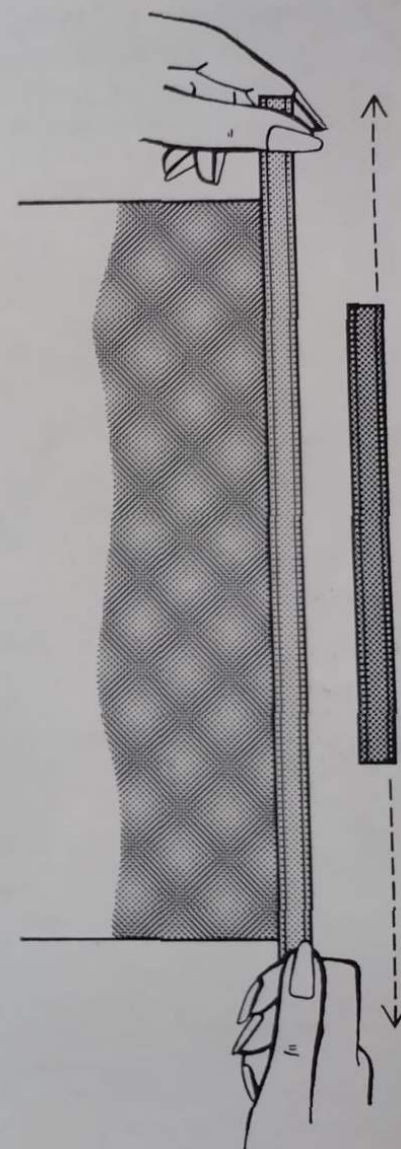
Turn utility-stitch control (6) to the symbol of the elastic seam (see p. 34).

Stitch length: 1

Stitch width: maximum

Lay the elastic on the fabric edge, stretching it with both hands, as illustrated. Then sew the stretched elastic down.

The more you stretch the elastic, the more the fabric will be gathered.



Pressed-open Seams and Inseams

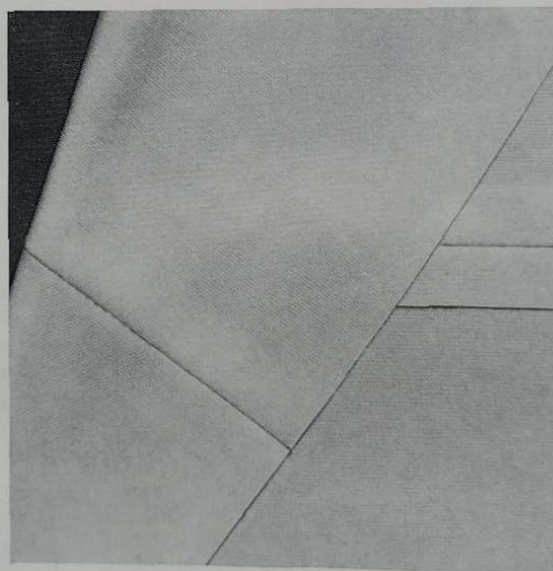
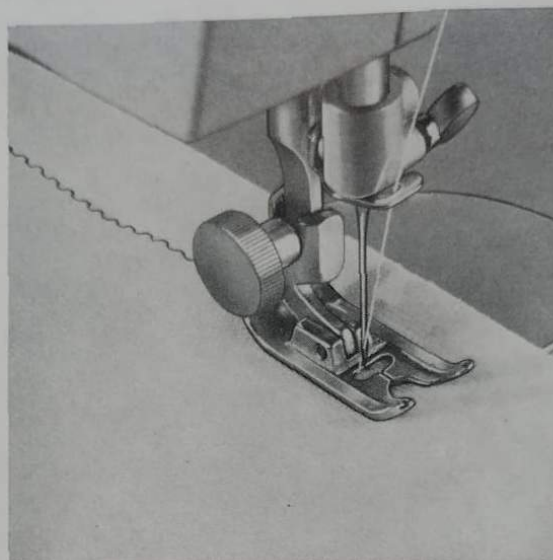


Use the ordinary sewing foot.

Turn utility-stitch control (6) to the symbol of the lampshade seam.

Stitch length: 0.5

Stitch width: minimum



Sew the two pieces of material together with the machine set as indicated above, then press the seam open. This seam is particularly well suited for stretch fabrics. When sewing synthetic stretch fabrics, please note the instructions given for regulating the tension on p. 16.

The same machine setting is used for closing inseams of trousers.

Inserting Patches



Apply the ordinary sewing foot.

Turn utility-stitch control (6) to the symbol of the elastic seam.

Maximum stitch length: 0.5

Stitch width: maximum

The same procedure is applied as is used for inserting patches with a pinnacle seam (see p. 37).

Reinforcing Hems in Knit Underwear



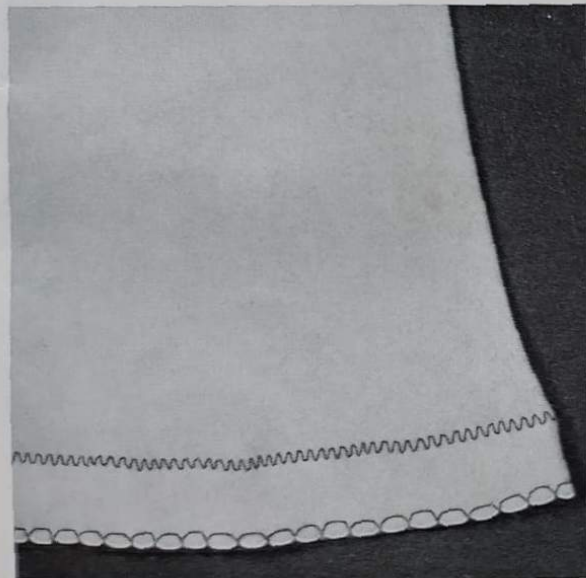
Attach the ordinary sewing foot.

Turn utility-stitch control (6) to the symbol of the lamp-shade seam (see p. 34).

Maximum stitch length: 0.5

Stitch width: maximum

Turn hem allowance and baste. Set the machine as indicated above and stitch the raw edge of the hem (see ill.).



Ornamental Seams

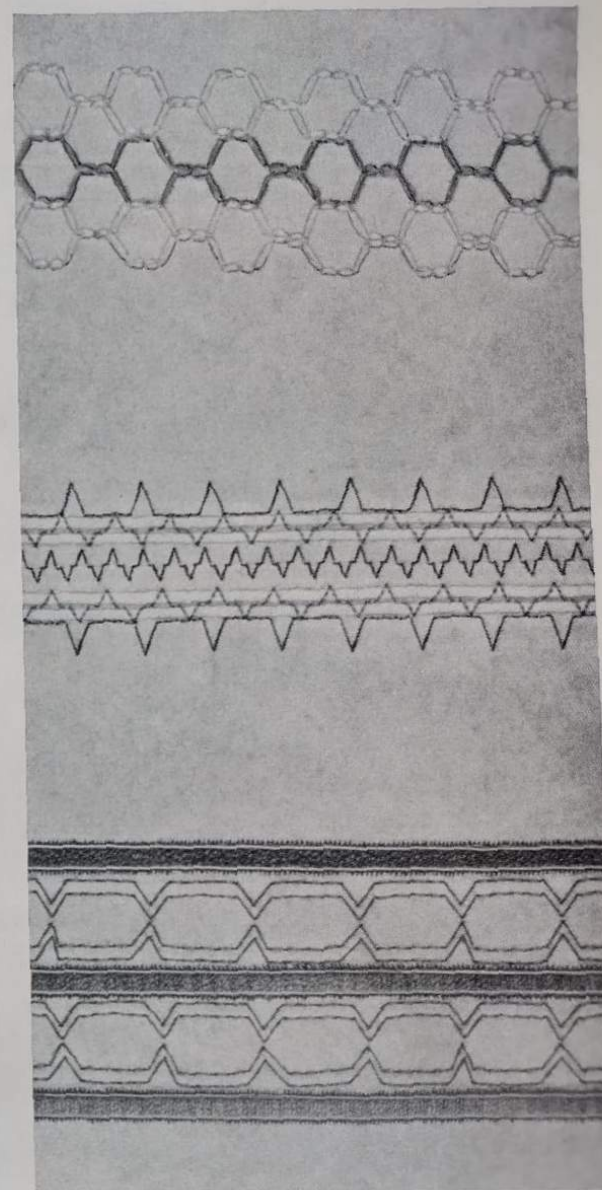


Apply clear-view sewing foot No. 93-100 179-00.

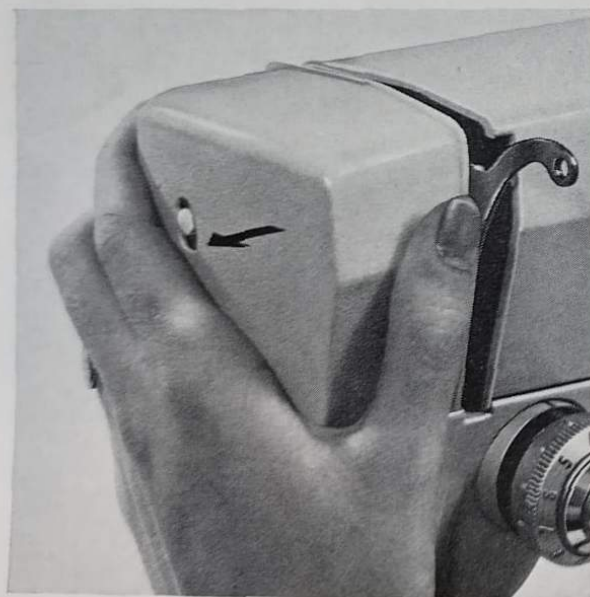
All utility stitches can be used to make exciting fashion-stitch designs, using threads in different sizes.

Some of the designs that can be made are illustrated on the right.

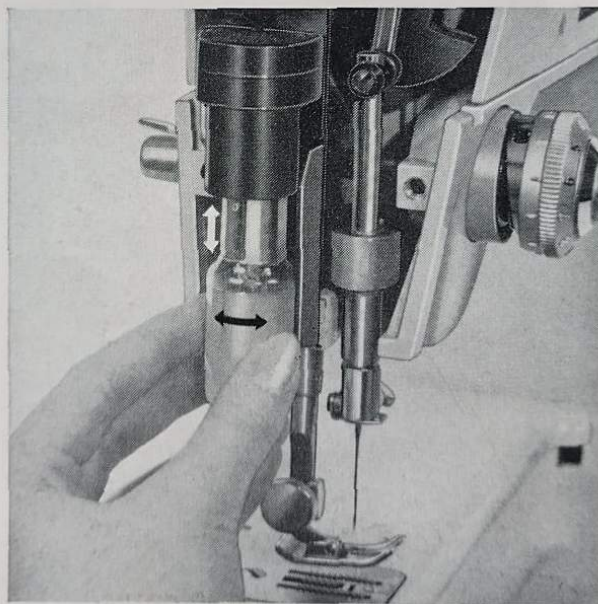
Set stitch length and stitch width to suit the desired pattern.



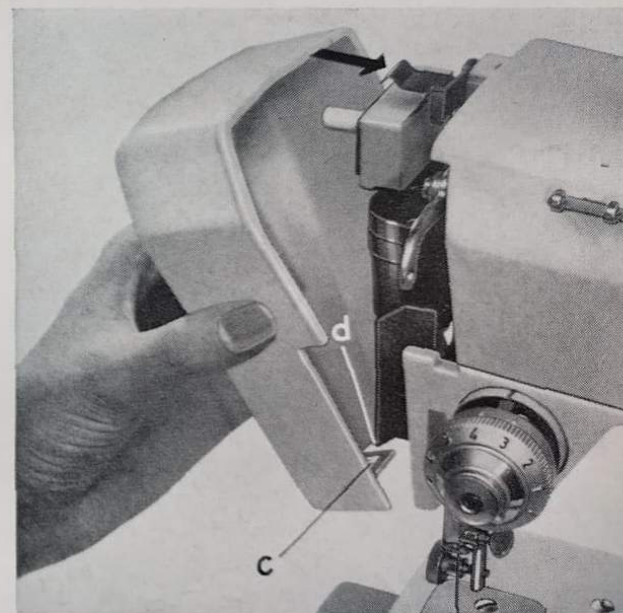
To **change the light bulb**, remove the face cover by pulling it in the direction indicated by an arrow.



Push the light bulb into its socket, turn left and pull out. Insert the new bulb so that its pins slide into the socket slots. Press the bulb in and turn right.



As you replace the face cover, slip tip **d** into slot **c**, then push against the face cover until it snaps into place.



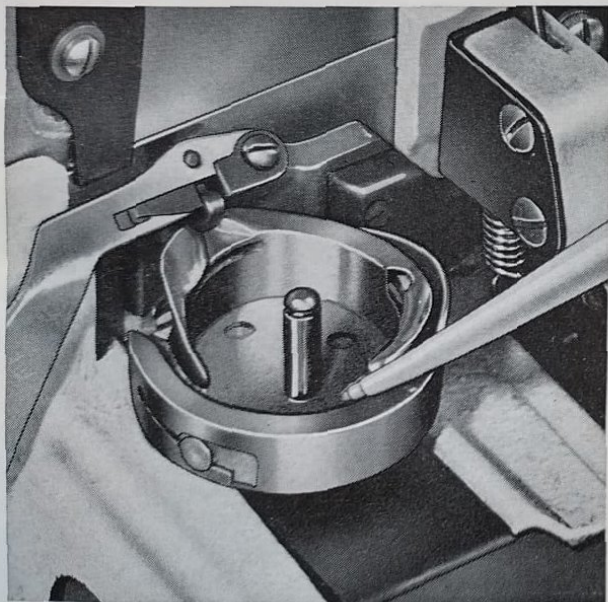
Machine Care

Longevity and smooth machine performance are dependent on regular cleaning and proper oiling. Since your Pfaff sewing machine has been made from high-grade materials, there are only a few oiling points left.

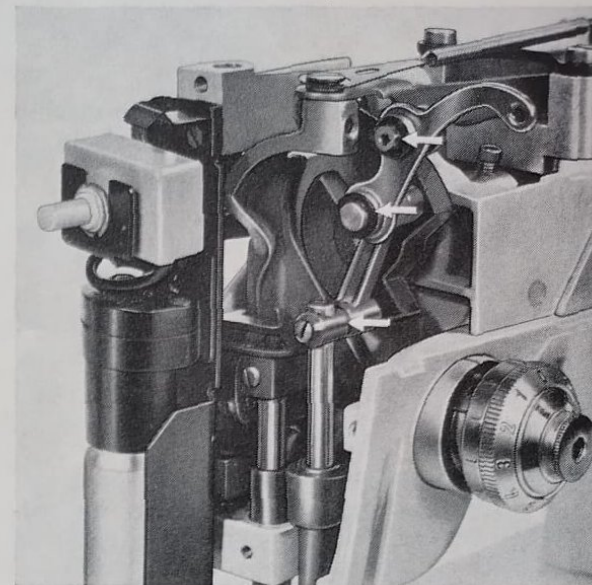
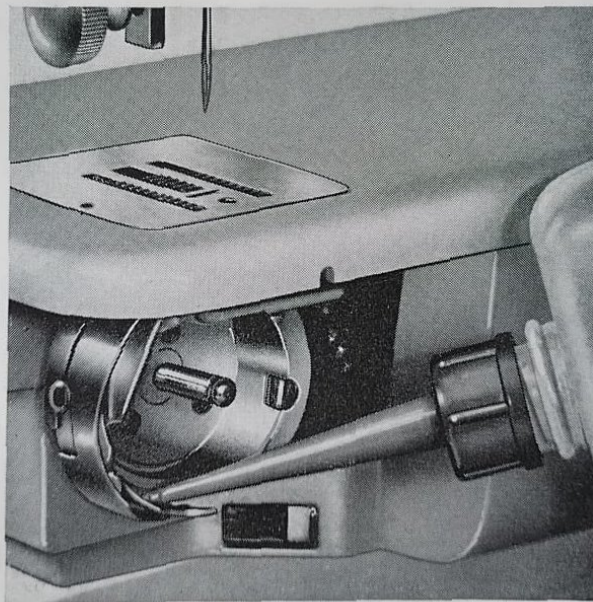
The raceway in the **sewing hook** is the most important oiling point. From time to time, put a drop of oil into the hook raceway (see ill. at left and center).

To get at the sewing hook of the Cl. 96, tilt the machine back.

Cl. 96



Cl. 97



The other oiling points in the machine are illustrated above. (Remove the face cover as instructed on p. 44.)

From time to time, clean the parts in the machine arm and in the vicinity of the sewing hook with a soft brush.

To this end, remove the needle, the sewing foot and the bobbin case with the bobbin.

On **Cl. 97** machines, loosen the set screw, lift the front of the free arm cover and pull the cover out lengthwise of the arm (1 & 2).

Cl. 96 machines are tilted back. On portable machines, loosen the screw on the bottom of the machine base and tilt the machine back cautiously (3).

Removing the Top Cover

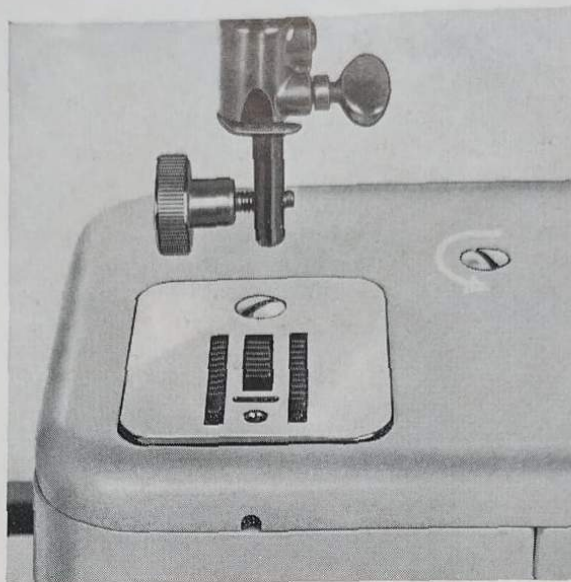
(4)

Begin by removing the face cover (see p. 44. Turn the balance wheel until the take-up lever is at its lowest point and remove the thread retainer stud on the machine arm.

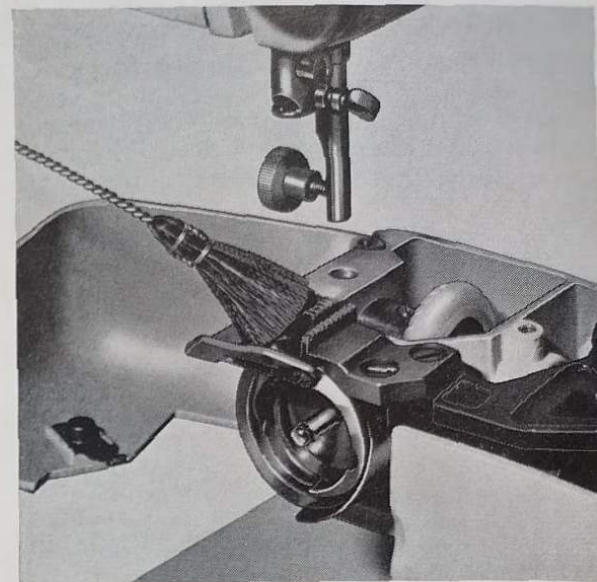
Seize the top cover with both hands, as illustrated, and pull it up perpendicularly (together with the utility-stitch control) with both hands.

To replace the top cover, press it against the machine arm from above and screw in the thread retainer stud.

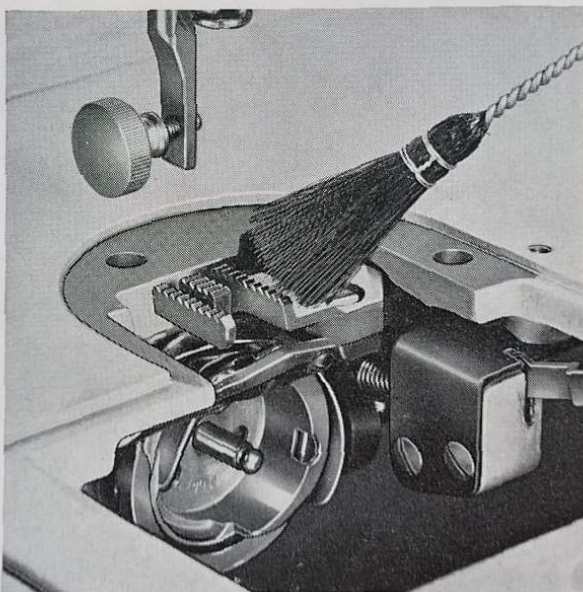
Replace the utility-stitch control and turn it while pressing it down slightly until it snaps into place. Replace face cover.



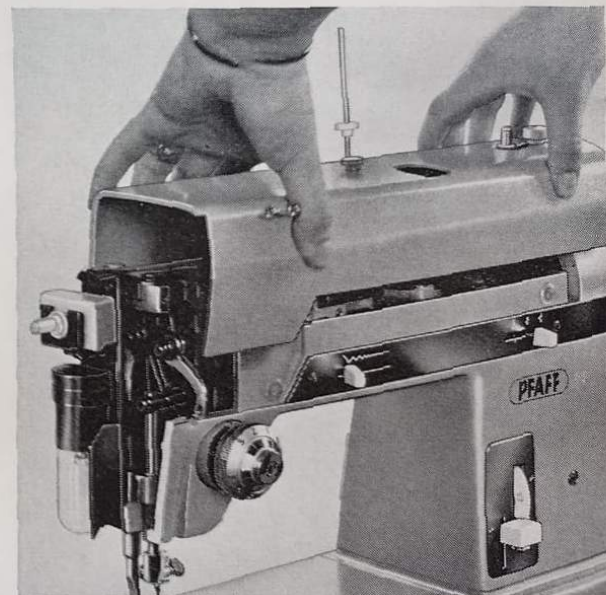
1



2



3



4

Trouble Shooting

When operated properly, your sewing machine will hardly develop any trouble.

Please remember to restore the normal setting after you have completed your sewing job (buttonhole sewing or darning, for instance) by switching the machine back to straight stitching, flicking the needle position lever to its central position, raising the machine feed and setting the stitch length control on "2".

If trouble should occur, check the following:

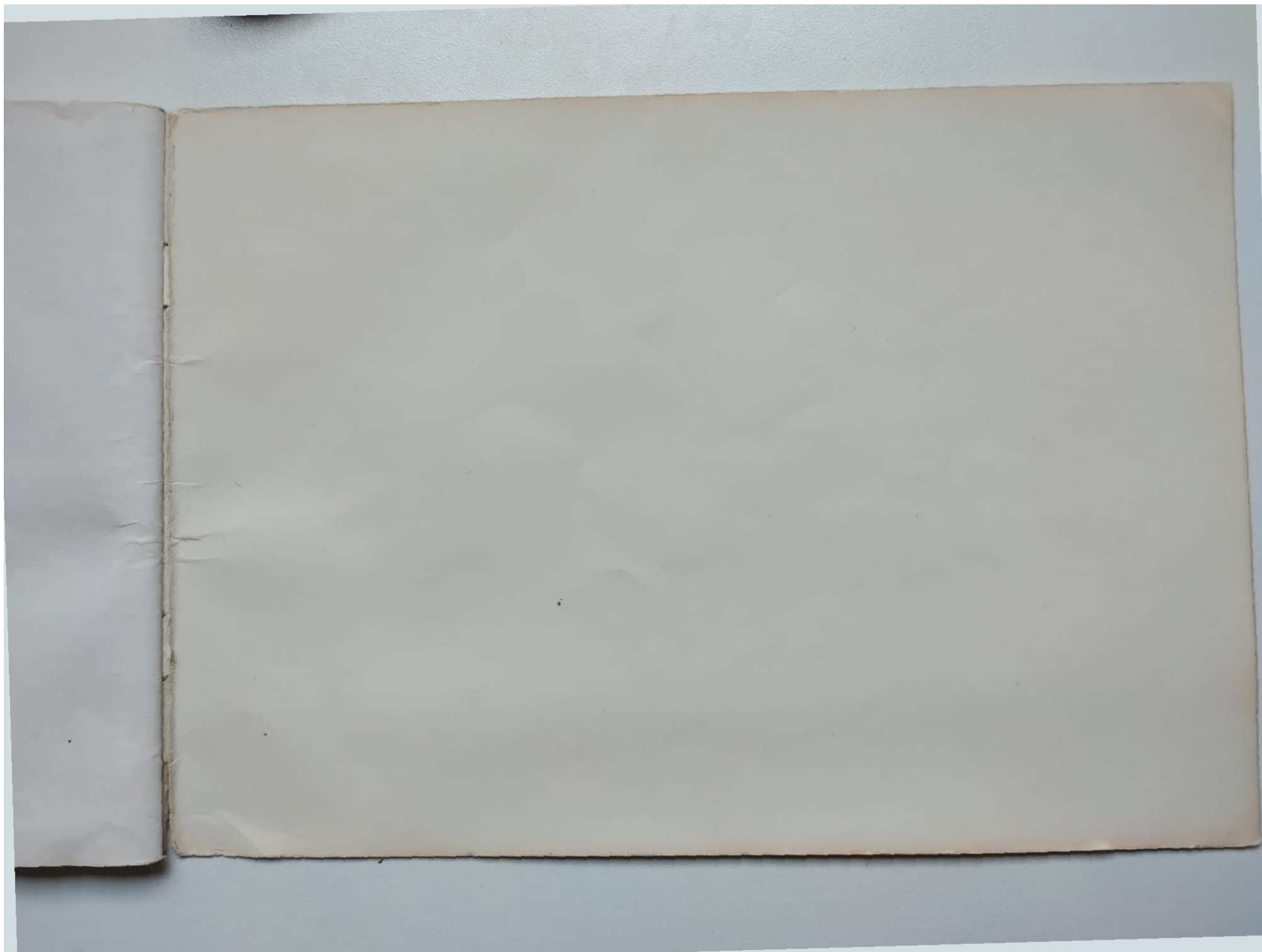
- The needle must not be damaged and must be inserted correctly.
- Select the correct needle and thread from the Needle and Thread Chart.
- Check whether the needle has been *threaded correctly*.
- Use only high-grade machine thread or sewing silk.
- Check to see that the bobbin case has been inserted correctly.
- Both tensions must be balanced correctly.
- Don't force the feeding motion, merely *guide the material lightly*.
- Clean and oil the machine as instructed.
- Make sure there are no pieces of thread wedged between the tension discs. To remove them, pull a narrow fabric strip between the tension discs.
- Make sure the utility-stitch control has been turned to the desired stitch.

- The rotary hook will not normally jam, even if the machine should be handled improperly.

If thread should happen to jam in the hook raceway, it is sufficient to put a drop of oil into the raceway, jerk the balance wheel back and then rock it back and forth, without applying force.

Contents

	Page		Page
Appliqué Work	29	Machine Care	45
Blindstitching	35	Mending Hems	40
Button Sewing	31	Monogram Embroidery	30
Butt Seaming	40	Motor Disengaging Mechanism	5
Changing the Light Bulb	44	Oiling	45
Changing the Needle	17	Ornamental Seams	43
Changing the Needle Position	31	Overcasting Edges	26
Changing the Sewing Foot	17	Pressed-open Seams	42
Cleaning	46	Quilting	21
Cording	23	Raising and Lowering the Sewing Foot	12
Darning	18	Regulating the Stitch Length	14
Darning Foot	18	Regulating the Thread Tensions	16
Darning Rips	39	Reinforcing Hems in Knit Underwear	43
Drawing Up the Bobbin Thread	12	Removing the Bobbin Case	6
Dropping the Machine Feed	18	Removing the Face Cover	44
Electrical Equipment	4	Removing the Top Cover	46
Engaging and Disengaging the Sewing Mechanism	7	Reverse Sewing	15
Essential Parts of the Cl. 96	2	Sewing Buttonholes	32
Essential Parts of the Cl. 97	3	Sewing Curtains	30
Flat Felled Seams	21	Sewing Knit Underwear	36
Foot Control	5	Sewing on Elastic	41
Foreword	1	Shell Edging	36
Fundamentals of Machine Operation	13	Stitching Terry Cloth	38
Hemming	22	Straight Stitching	14
Hemstitching	24	Trouble Shooting	47
Inseams	42	Upper Threading	11
Inserting a Full Bobbin	8	Utility-Stitch Seams	34
Inserting Lace	28	Winding the Bobbin	7
Inserting Patches with Zigzag Stitches	27	Workplate of the Cl. 96	10
Inserting Patches with Utility Stitches	37, 42	Workplate of the Cl. 97	10
Inserting the Bobbin Case	9	Zigzag Stitching	25
		Zipper Insertion	20



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